Drinking Water Surveillance Program

AJAX WATER SUPPLY PLANT

Annual Report 1989

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AJAX
WATER SUPPLY PLANT

DRINKING WATER SURVEILLANCE PROGRAM

ANNUAL REPORT 1989

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EXECUTIVE SUMMARY

DRINKING WATER SURVEILLANCE PROGRAM

AJAX WATER SUPPLY PLANT 1989 ANNUAL REPORT

The Drinking Water Surveillance Program (DWSP) for Ontario is a monitoring program providing immediate, reliable, current information on drinking water quality. The DWSP officially began in April 1986 and is designed to eventually include all municipal supplies in Ontario. In 1989, 65 plants were being monitored.

The Ajax Water Supply Plant is a conventional treatment plant which treats water from Lake Ontario. The process consists of coagulation, flocculation, sedimentation, filtration, disinfection and fluoridation. This plant has a design capacity of 55 x 1000 m^3/day. Approximately 105,500 people are supplied water from this plant and through a system interconnection from the Oshawa/Whitby Supply system when required.

Samples from the raw and treated water at the plant and one location in the distribution system were taken on a monthly basis and analyzed for approximately 180 parameters during 1989.

Parameters were divided into the following groups Bacteriological, Inorganic and Physical(Laboratory Chemistry, Field Chemistry and Metals) and Organics (Chloroaromatics, Chlorophenols, Pesticide and PCB, Phenolics, Polyaromatic Hydrocarbons, Specific Pesticides and Volatiles). Specific Pesticides and Chlorophenols were analyzed in June and November only.

A summary of results is shown in Table A.

Inorganic and Physical parameters (Laboratory Chemistry, Field Chemistry and Metals) were below any applicable health related ODWOs.

Of approximately 110 Organic parameters tested for on a monthly basis, none exceeded health related guidelines.

During 1989 the DWSP sampling results indicated that the Ajax Water Supply Plant produced good quality water at the plant and this quality was maintained in the distribution system.

TABLE A

DRINKING WATER SURVEILLANCE PROGRAM AJAX WTP

SUMMARY TABLE BY SCAN

SCAN	RAW TESTS	RAW POSITIVE	RAW %POSITIVE	TREATED TESTS	TREATED POSITIVE	TREATED %POSITIVE	SITE 1 TESTS	SITE 1 POSITIVE	SITE 1 %POSITIVE
BACTERIOLOGICAL	33	30	90	33	10	30	33	7	21
CHEMISTRY (FLD)	36	36	100	72	72	100	141	141	100
CHEMISTRY (LAB)	252	214	84	252	185	73	444	373	84
METALS	288	160	55	288	145	50	564	314	55
CHLOROAROMATICS	168	0	0	168	0	0	168	0	0
CHLOROPHENOLS	6	0	0	12	0	0	.	.	.
PAH	192	0	0	192	0	0	.	.	.
PESTICIDES & PCB	408	0	0	408	0	0	343	0	0
PHENOLICS	11	7	63	11	7	63	.	.	.
SPECIFIC PESTICIDES	39	0	0	65	0	0	12	0	0
VOLATILES	348	1	0	348	48	13	261	36	13
TOTAL	1781	448		1849	467		1966	871	

NO KNOWN HEALTH RELATED GUIDELINES WERE EXCEEDED.

A POSITIVE VALUE DENOTES THAT THE RESULT IS GREATER THAN THE STATISTICAL LIMIT OF DETECTION AND IS QUANTIFIABLE
A '.' INDICATES THAT NO SAMPLE WAS TAKEN

DRINKING WATER SURVEILLANCE PROGRAM

AJAX WATER SUPPLY PLANT
1989 ANNUAL REPORT

INTRODUCTION

The Drinking Water Surveillance Program (DWSP) for Ontario is a monitoring program providing immediate, reliable, current information on drinking water quality. The DWSP officially began in April 1986 and is designed to eventually include all municipal supplies in Ontario. In 1989, 65 plants were being monitored.

The DWSP program was initiated at the Ajax Water Supply Plant in May 1988. An Annual report was published for 1988 (ISSN 0843-8277).

This report contains information and results for 1989.

PLANT DESCRIPTION

The Ajax Water Supply Plant is a conventional treatment plant which treats water from Lake Ontario. The process consists of coagulation, flocculation, sedimentation, filtration, disinfection and fluoridation. Sulfur Dioxide is added for dechlorination. This plant has a design capacity of 55 x 1000 m^3/day and flows for day of sampling ranging from 14.9 x 1000 m^3/day to 40.5 x 1000 m^3/day. Approximately 105,500 people are supplied water from this plant and through a system interconnection from the Oshawa/Whitby Supply

system when required.

The plant location is shown in Figure 1. Plant Process details, in a block schematic, are shown in Figure 2. General plant information is presented in Table 2.

SAMPLE LOCATIONS

Water samples were obtained from three DWSP approved locations;

i) Plant Raw - The water originated from the wet well prior to addition of chemicals and was sampled through a stainless steel pump and stainless steel line. The sample tap is located at the wet well.

ii) Plant Treated - The water originated from the highlift discharge after addition of all treatment chemicals and was sampled through a stainless steel line. The sample tap is located at the highlift.

iii) Distribution System - Site 1 - The distance of this house from the plant is 2.0 kilometres. Water was sampled through copper plumbing from the basement laundry tap.

SAMPLING AND ANALYSIS

Sample lines in the plant were flushed prior to sampling to ensure that the water obtained was indicative of its origin and not residual water standing in the sample line. At the distribution system location two types of samples were obtained: a standing and a free flow. The standing sample consisted of water that had been in the household plumbing and service connection for a minimum of six hours. These samples are used to make an assessment of the amount by which the levels inorganic compounds and metals may be changed on standing due to leaching from (or deposition on) the plumbing system. The only analyses carried on the standing samples therefore, are General Chemistry and Metals. The free flow sample represented fresh water from the distribution main that had been flowing at the sample tap for five minutes before being sampled.

Attempts were made to capture the same block of water at each sampling point by taking the retention time into consideration. The retention time was calculated by dividing the volume of water between the two sampling points by the sample day flow. For example, if it was determined that the retention time within the plant was five hours then there would be a five hour interval between the raw and treated sampling. Similarly if it was estimated that it took approximately one day for the water to travel from the plant to the distribution system site, this site would be sampled one day after the treated water from the plant.

TABLE 1

DRINKING WATER SURVEILLANCE PROGRAM ANNUAL REPORT

IN-PLANT MONITORING AJAX WATER TREATMENT PLANT 1989

PARAMETER	LOCATION	FREQUENCY
Aluminum residual	Finished water	daily
Chlorine residual - free	Pre-chlorination	continuous
	Post-chlorination	continuous
Fluoride	Finished water	daily
Temperature	Finished water	continuous
Turbidity	Raw water	continuous
	Filter effluent	continuous
	Finished water	continuous

TABLE 2

DRINKING WATER SURVEILLANCE PROGRAM ANNUAL REPORT

GENERAL INFORMATION

AJAX WATER SUPPLY PLANT

LOCATION:	LAKE DRIVEWAY AJAX, ONTARIO (416-668-2800)
SOURCE:	RAW WATER SOURCE - LAKE ONTARIO
DESIGN CAPACITY:	55 (1000 M^3/DAY)
OPERATION:	REGIONAL MUNICIPALITY OF DURHAM
PLANT SUPERINTENDENT:	L. MURRAY
MINISTRY REGION:	CENTRAL
DISTRICT OFFICER:	D. BEACH

MUNICIPALITY SERVED	POPULATION
AJAX	46,994
PICKERING	58,478

FIGURE 1

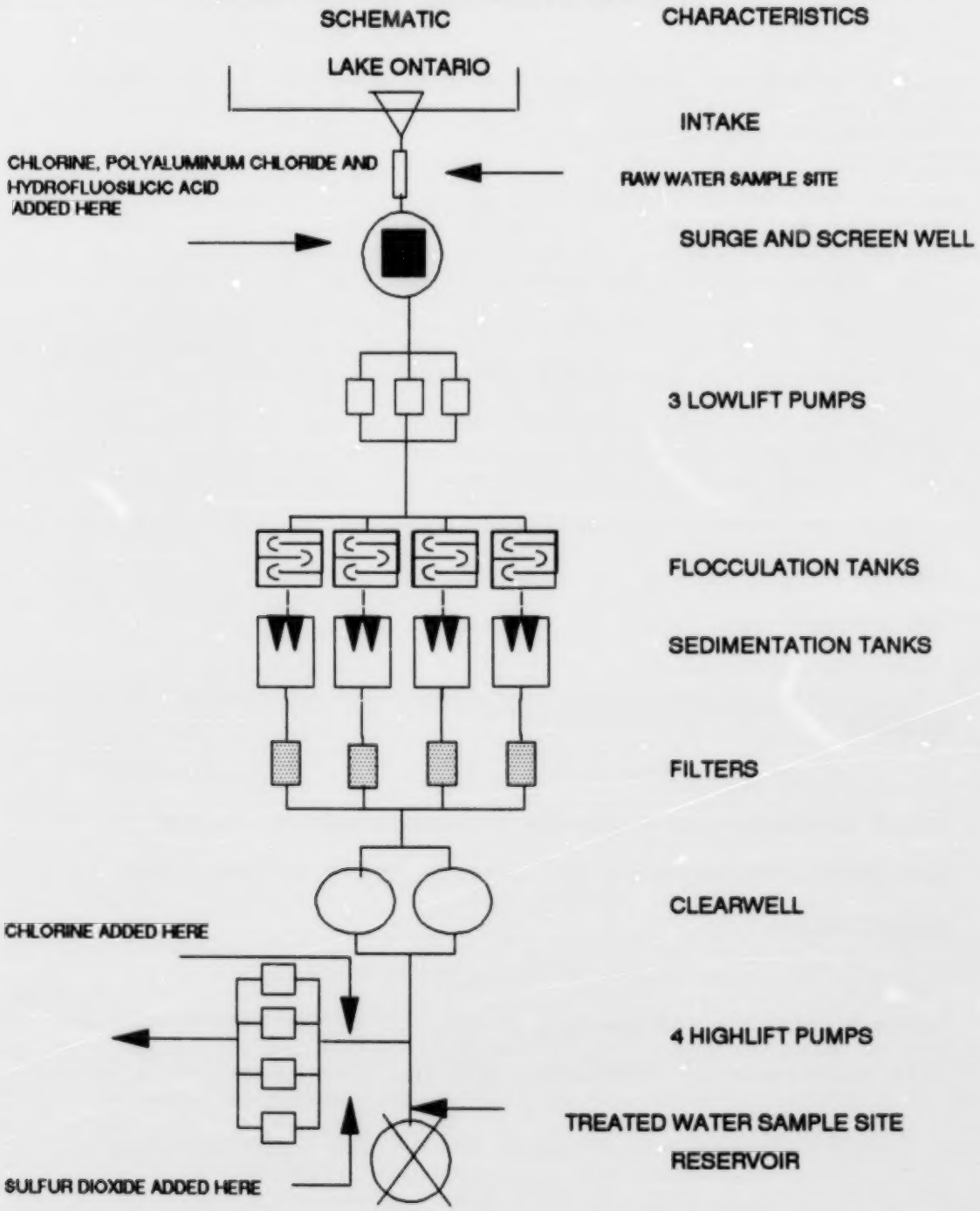
DRINKING WATER SURVEILLANCE PROGRAM

SITE LOCATION MAP

AJAX WATER TREATMENT PLANT

Figure 2

AJAX WATER SUPPLY PLANT



Stringent DWSP sampling protocols were followed to ensure that all samples were taken in a uniform manner.

Plant operating personnel perform analyses on parameters for process control (Table 1).

Water at the Ajax Water Treatment Plant and at one location in the distribution system was sampled monthly in 1989, each sample was analyzed for approximately 180 parameters. The Specific Pesticides and Chlorophenols scans were sampled for in June and November only. Polyaromatic Hydrocarbons and Phenolics were only analyzed for in the raw and treated water at the plant. As of August the triazine pesticides were only analyzed in the raw and treated water. Laboratory analysis was conducted at the Ministry of the Environment facilities in Rexdale, Ontario.

RESULTS

Field Chemistry measurements were recorded on the day of sampling and were entered onto the DWSP database as submitted by plant personnel.

Table 3 contains information on the sample day retention time, flow rate and treatment chemicals used and their associated dosages.

Table 4 is a summary break-down of the number of water samples analyzed for by parameter and by water type. The number of times that a positive or trace result was detected is also reported.

Positive denotes that the result is greater than the statistical limit of detection established by the Ministry of the Environment (MOE) laboratory staff and is quantifiable. Trace (<T) denotes that the level measured is greater than the lowest value detectable by the method but lies so close to the detection limit that it cannot be confidently quantified.

Table 5 presents the results for parameters detected on at least one occasion.

Table 6 lists all parameters analyzed in DWSP.

Associated guidelines and detection limits are also supplied on tables 5 and 6. Parameters are listed alphabetically within each scan.

DISCUSSION

General

Water quality is judged by comparison with the Ontario Drinking Water Objectives (ODWOs) as defined in the 1984 publication (ISBN 0-7743-8985-0). The Province of Ontario has health related and

aesthetic objectives for 49 parameters, these are currently under review. When an ODWO is not available guidelines/limits from other agencies are consulted. The Parameters Listing System (PALIS) recently published (ISBN 0-7729-4461-X) by the MOE catalogues and keeps current over 1750 guidelines for 650 parameters from agencies throughout the world.

Many of the compounds detected are naturally occurring or are treatment by-products.

Plant operational personnel address occurrences of taste and odour or biological water quality parameters. The DWSP does not assess these aspects of the water supply.

As stated under Results, traces do not indicate quantifiable values, as defined by established MOE Laboratory analytical reporting protocols. While they can be useful in trend analysis or confirmation of the presence of a specific contaminant that is repeatedly detected at these levels, the occasional finding of a trace level of a contaminant is not considered to be significant. **DISCUSSION OF GUIDELINES AND LIMITS THEREFORE, IS ONLY CONDUCTED ON POSITIVE RESULTS.**

Bacteriology

Positive results for the Bacteriology scan were present ten times in the treated water and seven times in the Site 1 water. The positive parameters were Standard Plate Count, Total Coliform and Total Coliform Background.

Total Coliforms were detected by the membrane filtration test in the treated water sampled in January (1 count/100 mL), July (1 count/100 mL) and October (4 counts/100 mL) and in the February Site 1 water sample (1 count/100 mL).

Guidelines for bacteriological sampling and testing of a supply are developed to maintain a proper supervision of its bacteriological quality; the routine monitoring program usually requires the taking of multiple samples in a given system. Full interpretation of bacteriological quality cannot be made on the basis of single samples. Further, bacteriological limits were developed in acknowledgement that the presence of coliforms may be detected due to their non-uniform distribution throughout the distribution system and the fact that their enumeration is subject to considerable variation. For these reasons, the occasional finding of low numbers of coliform organisms is not unexpected. Routine bacteriological monitoring, as outlined in the ODWOs is carried out by the operating authority.

Inorganic and Physical Parameters

Laboratory and Field Chemistry

The results for Laboratory and Field Chemistry scans were below any applicable health related ODWOs.

The Langelier Index is used extensively in estimating the corrosion potential of water. An increasingly negative index indicates the increasing possibility of corrosion. It is considered sound engineering practice to maintain a slightly positive Langelier Index. The Langelier Index for Ajax is consistently positive.

As part of the treatment process hydrofluosilicic acid is added to the treated water (Table 3). Where fluoridation is practised, the fluoride concentration recommended in the ODWO is 1.2 mg/L, plus or minus 0.2 mg/L. This level was not maintained as indicated by the Fluoride levels which were below 1.0 mg/L on five occasions and above 1.4 mg/L twice in the treated water.

The ODWO recommend a hardness level of between 80 and 100 mg/L as calcium carbonate for domestic waters, to provide an acceptable balance between corrosion and encrustation. Water supplies with a hardness greater than 200 mg/L are considered poor and would possess a tendency to form scale deposits and result in excessive soap consumption. The hardness values for the Ajax water ranged from 120 to 150 mg/L.

It is desirable that the Temperature of drinking water be less than 15°C; the palatability of water is enhanced by its coolness. A temperature below 15°C will tend to reduce the growth of nuisance organisms and hence minimize associated taste, colour, odour and corrosion problems. The temperature of the delivered water may increase in the distribution system due to the warming effect of the soil in late summer and fall and/or as a result of higher temperatures in the source water. The desired ODWO was exceeded twice in the treated water and twice in the free flow distributed water.

Metals

The results reported for the Metal scan were below any applicable health related ODWOs.

Elevated levels of Copper and Lead were detected in the standing samples from the distribution system site as compared to the free flow samples thus, indicating that these metals were leached from the household plumbing as the water stood overnight. Although the Langelier Index indicates minimal potential for corrosion some metals will be leached in standing samples in most supplies.

At present, there is no evidence that Aluminum is physiologically harmful and no health limit for drinking water has been specified. The measure of residual Aluminum in the treated water is important

to indicate the efficiency of the treatment process. The ODWOs indicate that a useful guideline is to maintain a residual below 100 µg/L as Al in the water leaving the plant to avoid problems in the distribution system. Aluminum values exceeded the ODWO operational guideline seven times in the treated water.

Organic Parameters

Chloroaromatics

Results of the Chloroaromatics scan showed that none were detected.

Chlorophenols

Results of the Chlorophenol scan showed that no Chlorophenols were detected.

Pesticides and PCB (Polychlorinated Biphenyl)

Results of the Pesticides and PCB scan showed that no PCBs were detected and that two pesticides were detected:

Alpha BHC

Lindane

There are several isomers of BHC (Benzene Hexachloride); gamma Lindane is the active ingredient in the pesticide Lindane, while alpha BHC is the isomer predominantly found in surface waters in the Great Lakes basin.

Alpha BHC was detected at trace levels, nine times in the raw water, seven times in the treated water and eight times in the Site 1 water.

Lindane was detected at trace levels, once in the treated water and once in the Site 1 water.

Specific Pesticides

Results of the Specific Pesticides scan showed that none were detected.

Phenolics

The maximum desirable concentration of phenolic substances in drinking water is 2.0 µg/L. This limit has been set primarily to prevent the occurrence of undesirable tastes and odours, particularly in chlorinated water. Phenolics were detected in the raw water ranging from 1 to 15.6 µg/L and in the treated water ranging from 1 to 3.0 µg/L. Phenolic compounds are present in the aquatic environment as a result of natural and/or industrial processes.

Polyaromatic Hydrocarbons (PAH)

Results of the PAH scan showed that one PAH was detected:

Benzo(K)Fluoranthene

Benzo(K)Fluoranthene was detected at a trace level, in one treated

water sample.

Volatiles

Results of the Volatile scan showed that seven parameters, other than Trihalomethanes(THMs), were detected:

Toluene

Ethylbenzene

Ortho-Xylene

Styrene

1,1,1-Trichloroethane

Tetrachloroethylene

1,4-Dichlorobenzene

Toluene was detected at trace levels, twice in the raw water, three times in the treated water and four times in the Site 1 water.

Ethylbenzene was detected at trace levels, twice in the raw water, four times in the treated water and five times in the Site 1 water.

Ortho-Xylene (O-Xylene) was detected at a trace level, once in the treated water.

The detection of ethylbenzene, toluene and the xylenes at low, trace levels is a laboratory artifact derived from the analytical methodology.

The detected trace levels of Styrene are also considered to be laboratory artifacts resulting from the polystyrene shipping containers. The sporadic background levels from this source are in the order of 0.05 µg/L.

1,1,1-Trichloroethane was detected at trace levels, four times in the raw water.

Tetrachloroethylene (T-chloroethylene) was detected at a trace level, in one treated water sample.

1,4-Dichlorobenzene was detected at trace levels, two times in the Site 1 water.

THMs are known to be produced during the water treatment process and will always occur in chlorinated surface waters. THMs are comprised of Chloroform, Chlorodibromomethane and Dichlorobromomethane. Bromoform occurs occasionally. Results are reported for the individual compounds as well as for total THMs.

Chloroform, Chlorodibromomethane, Dichlorobromomethane and Total THMs were detected in all treated waters. Chloroform was detected at trace levels three times in the raw water. Bromoform was detected at trace levels in all of the treated waters. All Total THM occurrences, ranging from 28.8 µg/L - 53.0 µg/L were well below the ODWO of 350 µg/L.

CONCLUSIONS

The Ajax Water Supply Plant for the sample year of 1989 produced good quality water at the plant and this quality was maintained in the distribution system.

No health related guidelines, for organic or inorganic parameters, were exceeded during 1989.

RECOMMENDATIONS

Three recommendations can be made:

1) The reason for elevated Aluminum levels in treated water samples should be investigated.

2) Fluoridation practises should be adjusted to maintain the recommended level of fluoride in distributed water.

3) The raw water sample location should be reassessed to ensure that it meets the DWSP sampling protocol.

The Region of Durham is currently monitoring the coagulation system for reduced aluminum residuals. The fluoridation equipment is under review to improve dosage and residual controls. Ministry staff have

evaluated the raw water sampling point and have agreed that it is the best location available.

TABLE 3

DRINKING WATER SURVEILLANCE PROGRAM AJAX WTP SAMPLE DAY CONDITIONS FOR 1989

SAMPLE DAY CONDITIONS			TREATMENT CHEMICAL DOSAGES (MG/L)	
			COAGULATION	FLUORIDATION
			POLYALUMINUM CHLORIDE	HYDROFLUOSILICIC ACID
DATE	RETENTION TIME(HRS)	FLOW (1000M3)		
JAN 11	2.0	15.8	4.50	1.05
FEB 15	2.0	14.9	3.00	1.15
MAR 15	2.0	24.8	3.40	1.20
APR 12	2.0	27.2	2.60	1.00
MAY 17	2.0	19.7	4.80	.
JUN 14	2.0	31.1	4.30	1.15
JUL 12	2.2	40.5	4.50	1.05
AUG 16	2.0	32.4	6.70	1.10
SEP 13	1.7	26.8	3.70	1.48
OCT 12	1.7	19.0	3.00	1.12
NOV 08	1.7	20.0	3.40	1.25
DEC 06	2.0	17.9	5.10	1.15

TABLE 4

DRINKING WATER SURVEILLANCE PROGRAM AJAX

SUMMARY TABLE OF RESULTS (1989)

SCAN	PARAMETER	RAW			TREATED			SITE 1		
		TOTAL	POSITIVE	TRACE	TOTAL	POSITIVE	TRACE	TOTAL	POSITIVE	TRACE
BACTERIOLOGICAL	FECAL COLIFORM MF	11	8	0	.	.	.	.	.	.
	STANDRD PLATE CNT MF	.	.	.	11	3	0	11	1	0
	TOTAL COLIFORM MF	11	11	0	11	3	0	11	1	0
	T COLIFORM BCKGRD MF	11	11	0	11	4	0	11	5	0
*TOTAL SCAN BACTERIOLOGICAL		33	30	0	33	10	0	33	7	0
*TOTAL GROUP BACTERIOLOGICAL		33	30	0	33	10	0	33	7	0
CHEMISTRY (FLD)	FLD CHLORINE (COMB)	.	.	.	12	12	0	23	23	0
	FLD CHLORINE FREE	.	.	.	12	12	0	24	24	0
	FLD CHLORINE (TOTAL)	.	.	.	12	12	0	24	24	0
	FLD PH	12	12	0	12	12	0	24	24	0
	FLD TEMPERATURE	12	12	0	12	12	0	22	22	0
	FLD TURBIDITY	12	12	0	12	12	0	24	24	0
*TOTAL SCAN CHEMISTRY (FLD)		36	36	0	72	72	0	141	141	0
CHEMISTRY (LAB)	ALKALINITY	12	12	0	12	12	0	24	24	0
	CALCIUM	12	12	0	12	12	0	24	24	0
	CYANIDE	12	0	0	12	0	0	12	0	0
	CHLORIDE	12	12	0	12	12	0	24	24	0
	COLOUR	12	3	9	12	0	11	24	0	22
	CONDUCTIVITY	12	12	0	12	12	0	24	24	0

TABLE 4

DRINKING WATER SURVEILLANCE PROGRAM AJAX

SUMMARY TABLE OF RESULTS (1989)

SCAN	PARAMETER	RAW			TREATED			SITE 1		
		TOTAL	POSITIVE	TRACE	TOTAL	POSITIVE	TRACE	TOTAL	POSITIVE	TRACE
CHEMISTRY (LAB)	FLUORIDE	12	12	0	12	12	0	24	24	0
	HARDNESS	12	12	0	12	12	0	24	24	0
	IONCAL	12	12	0	12	12	0	24	24	0
	LANGELIERS INDEX	12	12	0	12	12	0	24	24	0
	MAGNESIUM	12	12	0	12	12	0	24	24	0
	SODIUM	12	12	0	12	12	0	24	24	0
	AMMONIUM TOTAL	12	12	0	12	3	5	24	13	5
	NITRITE	12	9	3	12	1	4	24	2	17
	TOTAL NITRATES	12	12	0	12	12	0	24	24	0
	NITROGEN TOT KJELD	12	12	0	12	12	0	24	24	0
	PH	12	12	0	12	12	0	24	24	0
	PHOSPHORUS FIL REACT	12	2	4	12	1	6	.	.	.
	PHOSPHORUS TOTAL	12	8	4	12	1	9	.	.	.
	SULPHATE	12	12	0	12	12	0	24	24	0
	TURBIDITY	12	12	0	12	11	1	24	22	2
*TOTAL SCAN CHEMISTRY (LAB)		252	214	20	252	185	36	444	373	46
METALS	SILVER	12	0	2	12	0	4	24	0	8
	ALUMINUM	12	12	0	12	12	0	24	24	0
	ARSENIC	12	8	4	12	7	5	24	14	10
	BARIUM	12	12	0	12	12	0	24	24	0
	BORON	12	12	0	12	12	0	24	24	0
	BERYLLIUM	12	0	9	12	0	8	24	0	15

TABLE 4

DRINKING WATER SURVEILLANCE PROGRAM AJAX

SUMMARY TABLE OF RESULTS (1989)

SCAN	PARAMETER	RAW			TREATED			SITE 1		
		TOTAL	POSITIVE	TRACE	TOTAL	POSITIVE	TRACE	TOTAL	POSITIVE	TRACE
METALS	CADMIUM	12	0	8	12	0	2	24	0	14
	COBALT	12	0	11	12	0	11	24	0	23
	CHROMIUM	12	7	5	12	8	4	24	19	5
	COPPER	12	12	0	12	12	0	24	24	0
	IRON	12	2	10	12	0	5	24	0	15
	MERCURY	12	0	2	12	0	2	12	0	3
	MANGANESE	12	12	0	12	6	6	24	18	6
	MOLYBDENUM	12	12	0	12	12	0	24	24	0
	NICKEL	12	3	9	12	3	8	24	2	21
	LEAD	12	7	5	12	1	6	24	21	3
	ANTIMONY	12	12	0	12	12	0	24	24	0
	SELENIUM	12	0	7	12	0	10	24	0	19
	STRONTIUM	12	12	0	12	12	0	24	24	0
	TITANIUM	12	12	0	12	12	0	24	24	0
	THALLIUM	12	0	4	12	0	2	24	0	5
	URANIUM	12	12	0	12	12	0	24	24	0
	VANADIUM	12	1	11	12	0	12	24	0	24
	ZINC	12	12	0	12	12	0	24	24	0
*TOTAL SCAN METALS		288	160	87	288	145	85	564	314	171
*TOTAL GROUP INORGANIC & PHYSICAL		576	410	107	612	402	121	1149	828	217
CHLOROAROMATICS	HEXACHLOROBUTADIENE	12	0	0	12	0	0	12	0	0
	123 TRICHLOROBENZENE	12	0	0	12	0	0	12	0	0

TABLE 4

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SUMMARY TABLE OF RESULTS (1989)

SCAN	PARAMETER	RAW			TREATED			SITE 1		
		TOTAL	POSITIVE	TRACE	TOTAL	POSITIVE	TRACE	TOTAL	POSITIVE	TRACE
CHLOROAROMATICS	1234 T-CHLOROBENZENE	12	0	0	12	0	0	12	0	0
	1235 T-CHLOROBENZENE	12	0	0	12	0	0	12	0	0
	124 TRICHLOROBENZENE	12	0	0	12	0	0	12	0	0
	1245 T-CHLOROBENZENE	12	0	0	12	0	0	12	0	0
	135 TRICHLOROBENZENE	12	0	0	12	0	0	12	0	0
	HCB	12	0	0	12	0	0	12	0	0
	HEXACHLOROETHANE	12	0	0	12	0	0	12	0	0
	OCTACHLOROSTYRENE	12	0	0	12	0	0	12	0	0
	PENTACHLOROBENZENE	12	0	0	12	0	0	12	0	0
	236 TRICHLOROTOLUENE	12	0	0	12	0	0	12	0	0
	245 TRICHLOROTOLUENE	12	0	0	12	0	0	12	0	0
	26A TRICHLOROTOLUENE	12	0	0	12	0	0	12	0	0
*TOTAL SCAN CHLOROAROMATICS		168	0	0	168	0	0	168	0	0
CHLOROPHENOLS	234 TRICHLOROPHENOL	1	0	0	2	0	0	.	.	.
	2345 T-CHLOROPHENOL	1	0	0	2	0	0	.	.	.
	2356 T-CHLOROPHENOL	1	0	0	2	0	0	.	.	.
	245-TRICHLOROPHENOL	1	0	0	2	0	0	.	.	.
	246-TRICHLOROPHENOL	1	0	0	2	0	0	.	.	.
	PENTACHLOROPHENOL	1	0	0	2	0	0	.	.	.
*TOTAL SCAN CHLOROPHENOLS		6	0	0	12	0	0	0	0	0

TABLE 4

DRINKING WATER SURVEILLANCE PROGRAM AJAX

SUMMARY TABLE OF RESULTS (1989)

SCAN	PARAMETER	RAW			TREATED			SITE 1		
		TOTAL	POSITIVE	TRACE	TOTAL	POSITIVE	TRACE	TOTAL	POSITIVE	TRACE
PAH	PHENANTHRENE	12	0	0	12	0	0	.	.	.
	ANTHRACENE	12	0	0	12	0	0	.	.	.
	FLUORANTHENE	12	0	0	12	0	0	.	.	.
	PYRENE	12	0	0	12	0	0	.	.	.
	BENZO(A)ANTHRACENE	12	0	0	12	0	0	.	.	.
	CHRYSENE	12	0	0	12	0	0	.	.	.
	DIMETH. BENZ(A)ANTHR	6	0	0	6	0	0	.	.	.
	BENZO(E) PYRENE	12	0	0	12	0	0	.	.	.
	BENZO(B) FLUORANTHEN	12	0	0	12	0	0	.	.	.
	PERYLENE	12	0	0	12	0	0	.	.	.
	BENZO(K) FLUORANTHEN	12	0	0	12	0	1	.	.	.
	BENZO(A) PYRENE	6	0	0	6	0	0	.	.	.
	BENZO(G,H,I) PERYLEN	12	0	0	12	0	0	.	.	.
	DIBENZO(A,H) ANTHRAC	12	0	0	12	0	0	.	.	.
	INDENO(1,2,3-C,D) PY	12	0	0	12	0	0	.	.	.
	BENZO(B) CHRYSENE	12	0	0	12	0	0	.	.	.
	CORONENE	12	0	0	12	0	0	.	.	.
*TOTAL SCAN PAH		192	0	0	192	0	1	0	0	0
PESTICIDES & PCB	ALDRIN	12	0	0	12	0	0	12	0	0
	ALPHA BHC	12	0	9	12	0	7	12	0	8
	BETA BHC	12	0	0	12	0	0	12	0	0
	LINDANE	12	0	0	12	0	1	12	0	1

TABLE 4

DRINKING WATER SURVEILLANCE PROGRAM AJAX

SUMMARY TABLE OF RESULTS (1989)

SCAN	PARAMETER	RAW			TREATED			SITE 1		
		TOTAL	POSITIVE	TRACE	TOTAL	POSITIVE	TRACE	TOTAL	POSITIVE	TRACE
PESTICIDES & PCB	ALPHA CHLORDANE	12	0	0	12	0	0	12	0	0
	GAMMA CHLORDANE	12	0	0	12	0	0	12	0	0
	DIELDRIN	12	0	0	12	0	0	12	0	0
	METHOXYCHLOR	12	0	0	12	0	0	12	0	0
	ENDOSULFAN 1	12	0	0	12	0	0	12	0	0
	ENDOSULFAN II	12	0	0	12	0	0	12	0	0
	ENDRIN	12	0	0	12	0	0	12	0	0
	ENDOSULFAN SULPHATE	12	0	0	12	0	0	12	0	0
	HEPTACHLOR EPOXIDE	12	0	0	12	0	0	12	0	0
	HEPTACHLOR	12	0	0	12	0	0	12	0	0
	MIREX	12	0	0	12	0	0	12	0	0
	OXYCHLORDANE	12	0	0	12	0	0	12	0	0
	OPDDT	12	0	0	12	0	0	12	0	0
	PCB	12	0	0	12	0	0	12	0	0
	DDD	12	0	0	12	0	0	12	0	0
	PPDDE	12	0	0	12	0	0	12	0	0
	PPDDT	12	0	0	12	0	0	12	0	0
	AMETRINE	12	0	0	12	0	0	7	0	0
	ATRAZINE	12	0	0	12	0	0	7	0	0
	ATRATONE	12	0	0	12	0	0	7	0	0
	CYANAZINE (BLADEX)	12	0	0	12	0	0	7	0	0
	D-ETHYL ATRAZINE	12	0	0	12	0	0	7	0	0
	D-ETHYL SIMAZINE	12	0	0	12	0	0	7	0	0
	PROMETONE	12	0	0	12	0	0	7	0	0
	PROPAZINE	12	0	0	12	0	0	7	0	0

TABLE 4

DRINKING WATER SURVEILLANCE PROGRAM AJAX

SUMMARY TABLE OF RESULTS (1989)

SCAN	PARAMETER	RAW			TREATED			SITE 1		
		TOTAL	POSITIVE	TRACE	TOTAL	POSITIVE	TRACE	TOTAL	POSITIVE	TRACE
PESTICIDES & PCB	PROMETRYNE	12	0	0	12	0	0	7	0	0
	METRIBUZIN (SENCOR)	12	0	0	12	0	0	7	0	0
	SIMAZINE	12	0	0	12	0	0	7	0	0
	ALACHLOR (LASSO)	12	0	0	12	0	0	7	0	0
	METOLACHLOR	12	0	0	12	0	0	7	0	0
*TOTAL SCAN PESTICIDES & PCB		408	0	9	408	0	8	343	0	9
PHENOLICS	PHENOLICS	11	7	4	11	7	4	.	.	.
*TOTAL SCAN PHENOLICS		11	7	4	11	7	4	0	0	0
SPECIFIC PESTICIDES	TOXAPHENE	12	0	0	12	0	0	12	0	0
	2,4,5-T	1	0	0	2	0	0	.	.	.
	2,4-D	1	0	0	2	0	0	.	.	.
	2,4-DB	1	0	0	2	0	0	.	.	.
	2,4 D PROPIONIC ACID	1	0	0	2	0	0	.	.	.
	DICAMBA	1	0	0	2	0	0	.	.	.
	PICHLORAM	0	0	0	0	0	0	.	.	.
	SILVEX	1	0	0	2	0	0	.	.	.
	DIAZINON	1	0	0	2	0	0	.	.	.
	DICHLOROVOS	1	0	0	2	0	0	.	.	.
	CHLORPYRIFOS	1	0	0	2	0	0	.	.	.

TABLE 4

DRINKING WATER SURVEILLANCE PROGRAM AJAX

SUMMARY TABLE OF RESULTS (1989)

SCAN	PARAMETER	RAW			TREATED			SITE 1		
		TOTAL	POSITIVE	TRACE	TOTAL	POSITIVE	TRACE	TOTAL	POSITIVE	TRACE
SPECIFIC PESTICIDES	ETHION	1	0	0	2	0	0	.	.	.
	AZINPHOS-METHYL	0	0	0	1	0	0	.	.	.
	MALATHION	1	0	0	2	0	0	.	.	.
	MEVINPHOS	1	0	0	2	0	0	.	.	.
	METHYL PARATHION	1	0	0	2	0	0	.	.	.
	METHYLTRITHION	1	0	0	2	0	0	.	.	.
	PARATHION	1	0	0	2	0	0	.	.	.
	PHORATE	1	0	0	2	0	0	.	.	.
	RELDAN	1	0	0	2	0	0	.	.	.
	RONNEL	1	0	0	2	0	0	.	.	.
	AMINOCARB	0	0	0	0	0	0	.	.	.
	BENOMYL	1	0	0	1	0	0	.	.	.
	BUX	0	0	0	0	0	0	.	.	.
	CARBOFURAN	1	0	0	2	0	0	.	.	.
	CICP	1	0	0	2	0	0	.	.	.
	DIALLATE	1	0	0	2	0	0	.	.	.
	EPTAM	1	0	0	1	0	0	.	.	.
	IPC	1	0	0	2	0	0	.	.	.
	PROPOXUR	1	0	0	2	0	0	.	.	.
	CARBARYL	1	0	0	2	0	0	.	.	.
	BUTYLATE	1	0	0	2	0	0	.	.	.
*TOTAL SCAN SPECIFIC PESTICIDES		39	0	0	65	0	0	12	0	0
VOLATILES	BENZENE	12	0	0	12	0	0	9	0	0

TABLE 4

DRINKING WATER SURVEILLANCE PROGRAM AJAX

SUMMARY TABLE OF RESULTS (1989)

SCAN	PARAMETER	RAW			TREATED			SITE 1		
		TOTAL	POSITIVE	TRACE	TOTAL	POSITIVE	TRACE	TOTAL	POSITIVE	TRACE
VOLATILES	TOLUENE	12	0	2	12	0	3	9	0	4
	ETHYLBENZENE	12	0	2	12	0	4	9	0	5
	P-XYLENE	12	0	0	12	0	0	9	0	0
	M-XYLENE	12	0	0	12	0	0	9	0	0
	O-XYLENE	12	0	0	12	0	1	9	0	0
	STYRENE	12	1	5	12	0	7	9	0	6
	1,1 DICHLOROETHYLENE	12	0	0	12	0	0	9	0	0
	METHYLENE CHLORIDE	12	0	0	12	0	0	9	0	0
	T1,2DICHLOROETHYLENE	12	0	0	12	0	0	9	0	0
	1,1 DICHLOROETHANE	12	0	0	12	0	0	9	0	0
	CHLOROFORM	12	0	3	12	12	0	9	9	0
	111, TRICHLOROETHANE	12	0	4	12	0	0	9	0	0
	1,2 DICHLOROETHANE	12	0	0	12	0	0	9	0	0
	CARBON TETRACHLORIDE	12	0	0	12	0	0	9	0	0
	1,2 DICHLOROPROPANE	12	0	0	12	0	0	9	0	0
	TRICHLOROETHYLENE	12	0	0	12	0	0	9	0	0
	DICHLOROBROMOMETHANE	12	0	1	12	12	0	9	9	0
	112 TRICHLOROETHANE	12	0	0	12	0	0	9	0	0
	CHLORODIBROMOMETHANE	12	0	0	12	12	0	9	9	0
	T-CHLOROETHYLENE	12	0	0	12	0	1	9	0	0
	BROMOFORM	12	0	0	12	0	12	9	0	9
	1122 T-CHLOROETHANE	12	0	0	12	0	0	9	0	0
	CHLOROBENZENE	12	0	0	12	0	0	9	0	0
	1,4 DICHLOROBENZENE	12	0	0	12	0	0	9	0	2
	1,3 DICHLOROBENZENE	12	0	0	12	0	0	9	0	0

TABLE 4

DRINKING WATER SURVEILLANCE PROGRAM AJAX

SUMMARY TABLE OF RESULTS (1989)

SCAN	PARAMETER	RAW			TREATED			SITE 1		
		TOTAL	POSITIVE	TRACE	TOTAL	POSITIVE	TRACE	TOTAL	POSITIVE	TRACE
VOLATILES	1,2 DICHLOROBENZENE	12	0	0	12	0	0	9	0	0
	ETHLYENE DIBROMIDE	12	0	0	12	0	0	9	0	0
	TOTL TRIHALOMETHANES	12	0	0	12	12	0	9	9	0
*TOTAL SCAN VOLATILES		348	1	17	348	48	28	261	36	26
*TOTAL GROUP ORGANIC		1172	8	30	1204	55	41	784	36	35
TOTAL		1781	448	137	1849	467	162	1966	871	252

KEY TO TABLE 5 and 6

A ONTARIO DRINKING WATER OBJECTIVES (ODWO)
1. Maximum Acceptable Concentration (MAC)
1+. MAC for Total Trihalomethanes
1*. MAC for Bacteriological Analyses
Poor water quality is indicated when :
- total coliform counts > 0 < 5
- P/A Bottle Test is present after 48 hours
- Aeromonas organisms are detected in more than 25% of samples in a single submission or in successive submissions from the same sampling site
- Pseudomonas Aeruginosa, Staphylococcus Aureus and members of the Fecal Streptococcus group should not be detected in any sample
- Standard Plate Count should not exceed 500 organisms per ml at 35 ^{0}C within 48 hours
2. Interim Maximum Acceptable Concentration (IMAC)
3. Maximum Desirable Concentration (MDC)
4. Aesthetic or Recommended Operational Guideline
- hardness levels between 80 and 100 mg/L as calcium carbonate are considered to provide an acceptable balance between corrosion and incrustation, water supplies with a hardness >200 mg/L are considered poor and those in excess of 500 mg/L are unacceptable.

B HEALTH & WELFARE CANADA (H&W)
1. Maximum Acceptable Concentration (MAC)
2. Proposed MAC
3. Interim MAC
4. Aesthetic Objective (AO) (for xylenes, a total)

C WORLD HEALTH ORGANIZATION (WHO)
1. Guideline Value (GV)
2. Tentative GV
3. Aesthetic GV

D US ENVIRONMENTAL PROTECTION AGENCY (EPA)
1. Maximum Contaminant Level (MCL)
2. Suggested No-Adverse Effect Level (SNAEL)
3. Lifetime Health Advisory
4. EPA Ambient Water Quality Criteria
5. Maximum Contaminant Level Goal (MCLG)

F EUROPEAN ECONOMIC COMMUNITY (EEC)
1. Health Related Guideline Level
2. Aesthetic Guideline Level
3. Maximum Admissable Concentration (MADC)

G CALIFORNIA STATE DEPARTMENT OF HEALTH-GUIDELINE VALUE

H USSR MAXIMUM PERMISSIBLE CONCENTRATION

I NEW YORK STATE AMBIENT WATER GUIDELINE

N/A NONE AVAILABLE

INTERPRETATION OF DATA

The interpretation of analytical results that are obtained from measurements near the limit of detection of the measurement process is subject to greater uncertainty than those at higher concentrations. The principle areas of concern relate to whether the substance has actually been detected, whether it has been properly identified, and whether it is an artifact of the measurement process. In other words, false positives can be caused by the instrumentation or the test procedures used, when in fact these compounds are not present in the sample.

There are several methods to treat data from such measurements:
1. Exclude the low-level data because of this uncertainty factor. However, studies of long-term environmental trends and modelling may be adversely affected by exclusion of such data.
2. Qualify these data so the user is aware of the greater uncertainty associated with their use.

For the Drinking Water Surveillance Program, measurements near the limit of detection of the measurement process are reported qualified by the code "<T". Results quantified by "W" indicate a zero measurement. These results are reported for purposes of modelling and long-term trend analysis and no significance should be attributed to a single determination of a substance below "T" (a single determination may well be a false positive). Repeat analysis or additional data are needed before it can be stated with certainty that the substance in question was truly present. On the other hand, it is less likely that repeated detection of a substance at or near the limit of detection at a specific location is solely due to an artifact in the measurement system, and more likely represents a true positive. However the average of such data is still only an estimate of the amount of substance present subject to the possible biases of the method used.

LABORATORY RESULTS, REMARK DESCRIPTIONS

.	No Sample Taken
BDL	Below Minimum Measurable Amount
<T	Greater Than Detection Limit But Not Confident (SEE INTERPRETATION OF RESULTS ABOVE)
>	Results Are Greater Than The Upper Limit
<=>	Approximate Result
!AW	No Data: Analysis Withdrawn
!CR	No Data: Could Not Confirm By Reanalysis
!CS	No Data: Contamination Suspected
!IL	No Data: Sample Incorrectly Labelled
!IP	No Data: Insufficient Preservative
!IS	No Data: Insufficient Sample

!LA	No Data: Laboratory Accident
!LD	No Data: Test Queued After Sample Discarded
!NA	No Data: No Authorization To Perform Reanalysis
!NP	No Data: No Procedure
!NR	No Data: Sample Not Received
!OP	No Data: Obscured Plate
!QU	No Data: Quality Control Unacceptable
!PE	No Data: Procedural Error - Sample Discarded
!PH	No Data: Sample pH Outside Valid Range
!RE	No Data: Received Empty
!RO	No Data: See Attached Report (no numeric results)
!SM	No Data: Sample Missing
!SS	No Data: Send Separate Sample Properly Preserved
!UI	No Data: Indeterminant Interference
!TX	No Data: Time Expired
A3C	Approximate, Total Count Exceeded 300 Colonies
APL	Additional Peak, Large, Not Priority Pollutant
APS	Additional Peak, Less Than, Not Priority Pollutant
CIC	Possible Contamination, Improper Cap
CRO	Calculated Result Only
PPS	Test Performed On Preserved Sample
RMP	P and M-Xylene Not Separated
RRV	Rerun Verification
RVU	Reported Value Unusual
SPS	Several Peaks, Small, Not Priority Pollutant
UCR	Unreliable: Could Not Confirm By Reanalysis
UCS	Unreliable: Contamination Suspected
UIN	Unreliable: Indeterminant Interference
XP	Positive After X Number of Hours
T# (T06)	Result Taken After # Hours

TABLE 5

DRINKING WATER SURVEILLANCE PROGRAM AJAX WTP 1989

	WATER TREATMENT PLANT		DISTRIBUTION SYSTEM		
	RAW	TREATED	SITE 1		
			STANDING	FREE FLOW	
BACTERIOLOGICAL					
FECAL COLIFORM MF (CT/100ML)			**DET'N LIMIT = 0**		**GUIDELINE = 0 (A1)**
JAN	284 T48	.	.	.	
FEB	16 T24	.	.	.	
MAR	BDL	.	.	.	
APR	2 T24	.	.	.	
JUN	0	.	.	.	
JUL	1	.	.	.	
AUG	26	.	.	.	
SEP	8	.	.	.	
OCT	6	.	.	.	
NOV	11	.	.	.	
DEC	0	.	.	.	
STANDRD PLATE CNT MF ( )			**DET'N LIMIT = 0**		**GUIDELINE = 500/ML (A1)**
JAN	.	3 <=>	.	1 <=>	
FEB	.	11 T24	.	7 <=>	
MAR	.	14 T24	.	1 <=>	
APR	.	11 T24	.	1 <=>	
JUN	.	2 <=>	.	0 <=>	
JUL	.	3 <=>	.	2 <=>	
AUG	.	4 <=>	.	1 <=>	
SEP	.	0 <=>	.	4 <=>	
OCT	.	0 <=>	.	0 <=>	
NOV	.	4 <=>	.	114	
DEC	.	0 <=>	.	0 <=>	
TOTAL COLIFORM MF (CT/100ML)			**DET'N LIMIT = 0**		**GUIDELINE = 5/100ML(A1)**
JAN	4500 A3C	1 T48	.	0 T24	
FEB	1500 T24	0 T24	.	1 T06	
MAR	4 T24	0 T24	.	0 T06	
APR	500 T24	0 T24	.	0 T06	
JUN	4 A3C	0	.	0	
JUL	40 A3C	1	.	0	
AUG	240 A3C	0	.	0	
SEP	84 A3C	0	.	0	
OCT	960 A3C	4	.	0	
NOV	170 A3C	0	.	0	
DEC	100 A3C	0	.	0	
T COLIFORM BCKGRD MF (CT/100ML)			**DET'N LIMIT = 0**		**GUIDELINE = N/A**
JAN	57000 A3C	0 T48	.	0 T24	
FEB	7400 T24	1 T24	.	0 T06	
MAR	100 T24	0 T24	.	0 T06	
APR	2400 T24	3 T24	.	0 T06	
JUN	3320 A3C	0	.	1	
JUL	48000 >	0	.	0	

TABLE 5

DRINKING WATER SURVEILLANCE PROGRAM AJAX WTP 1989

	WATER TREATMENT PLANT		DISTRIBUTION SYSTEM	
	RAW	TREATED	SITE 1	
			STANDING	FREE FLOW
AUG	48000 >	0	.	1
SEP	9600 >	0	.	100
OCT	48000 >	15	.	2
NOV	24000 >	1	.	1
DEC	3500 A3C	0	.	0

TABLE 5

DRINKING WATER SURVEILLANCE PROGRAM AJAX WTP 1989

	WATER TREATMENT PLANT		DISTRIBUTION SYSTEM		
	RAW	TREATED	SITE 1		
			STANDING	FREE FLOW	
CHEMISTRY (FLD)					
FLD CHLORINE (COMB) ( )			DET'N LIMIT = N/A		GUIDELINE = N/A
JAN	.	.200	.200	.200	
FEB	.	.200	.200	.300	
MAR	.	.200	.250	.200	
APR	.	.300	.	.200	
MAY	.	.200	.200	.200	
JUN	.	.200	.200	.200	
JUL	.	.200	.200	.200	
AUG	.	.200	.200	.200	
SEP	.	.200	.200	.200	
OCT	.	.200	.200	.300	
NOV	.	.200	.200	.200	
DEC	.	.200	.300	.200	
FLD CHLORINE FREE ( )			DET'N LIMIT = N/A		GUIDELINE = N/A
JAN	.	.700	.100	.300	
FEB	.	.900	.200	.500	
MAR	.	.700	.100	.500	
APR	.	.900	.100	.300	
MAY	.	.700	.100	.300	
JUN	.	.500	.100	.500	
JUL	.	.700	.100	.300	
AUG	.	.500	.100	.300	
SEP	.	.500	.100	.300	
OCT	.	.900	.100	.300	
NOV	.	.500	.200	.300	
DEC	.	.500	.100	.500	
FLD CHLORINE (TOTAL) ( )			DET'N LIMIT = N/A		GUIDELINE = N/A
JAN	.	.900	.300	.500	
FEB	.	1.100	.400	.800	
MAR	.	.900	.350	.700	
APR	.	1.200	.100	.500	
MAY	.	.900	.300	.500	
JUN	.	.700	.300	.700	
JUL	.	.900	.300	.500	
AUG	.	.700	.300	.500	
SEP	.	.700	.300	.500	
OCT	.	1.100	.300	.600	
NOV	.	.700	.400	.500	
DEC	.	.700	.400	.700	
FLD PH (DIMNSLESS)			DET'N LIMIT = N/A		GUIDELINE = 6.5-8.5(A4)
JAN	7.600	7.600	7.400	7.400	
FEB	7.600	7.500	7.500	7.500	
MAR	8.000	7.700	7.500	7.500	

TABLE 5

DRINKING WATER SURVEILLANCE PROGRAM AJAX WTP 1989

	WATER TREATMENT PLANT		DISTRIBUTION SYSTEM	
	RAW	TREATED	SITE 1	
			STANDING	FREE FLOW
APR	7.800	7.800	7.800	7.500
MAY	8.000	7.800	7.800	7.600
JUN	7.800	7.600	7.800	7.600
JUL	7.600	7.600	7.700	7.600
AUG	8.000	7.600	7.700	7.600
SEP	7.800	7.600	7.600	7.600
OCT	7.600	7.600	7.400	7.500
NOV	7.600	7.500	7.600	7.500
DEC	7.600	7.600	7.500	7.500
FLD TEMPERATURE (DEG.C)			DET'N LIMIT = N/A	GUIDELINE = 15 (A1)
JAN	2.000	4.000	17.000	8.000
FEB	2.500	2.000	15.000	6.000
MAR	2.000	2.000	11.000	4.000
APR	6.000	6.000	12.000	6.000
MAY	8.000	8.000	14.000	8.500
JUN	12.000	10.000	16.000	12.000
JUL	6.000	7.000	18.000	10.500
AUG	21.000	21.000	21.000	21.000
SEP	17.500	17.500	22.000	18.000
OCT	6.000	6.500	17.500	14.000
NOV	6.500	7.000	18.000	12.000
DEC	.	.	.	.
FLD TURBIDITY (nTU)			DET'N LIMIT = N/A	GUIDELINE = 1.0 (A1)
JAN	17.600	.560	.420	.240
FEB	4.100	.270	.450	.390
MAR	1.540	.110	.980	.320
APR	3.700	.390	.560	.540
MAY	1.900	.240	.680	.400
JUN	1.600	.200	.400	.490
JUL	1.200	.210	.540	.160
AUG	2.900	.510	.240	.320
SEP	1.850	.270	.360	.220
OCT	1.170	.140	.180	.140
NOV	1.850	.190	.280	.260
DEC	2.300	.240	.480	.340

TABLE 5

DRINKING WATER SURVEILLANCE PROGRAM AJAX WTP 1989

	WATER TREATMENT PLANT		DISTRIBUTION SYSTEM		
	RAW	TREATED	SITE 1		
			STANDING	FREE FLOW	
	CHEMISTRY (LAB)				
ALKALINITY (MG/L)			DET'N LIMIT = .200		GUIDELINE = 30-500 (A4)
JAN	104.800	100.400	100.400	100.500	
FEB	101.900	99.600	100.000	99.900	
MAR	100.200	97.300	97.100	97.500	
APR	101.800	100.700	100.100	100.300	
MAY	100.700	98.500	98.800	98.300	
JUN	97.500	96.600	96.900	96.500	
JUL	102.200	99.900	99.500	98.500	
AUG	97.300	95.800	94.000	94.600	
SEP	99.200	93.700	95.200	93.900	
OCT	102.100	99.000	98.600	98.100	
NOV	102.300	98.300	98.900	98.900	
DEC	105.800	99.900	100.000	100.300	
CALCIUM (MG/L)			DET'N LIMIT = .100		GUIDELINE = 100 (F2)
JAN	43.400	43.800	41.800	42.400	
FEB	40.200	40.400	40.000	41.200	
MAR	40.200	40.000	40.000	40.400	
APR	41.000	40.200	40.200	40.400	
MAY	41.000	41.600	41.800	42.000	
JUN	40.800	41.600	41.400	42.400	
JUL	41.800	40.400	42.000	41.000	
AUG	39.600	39.200	38.800	41.200	
SEP	37.600	38.000	38.600	38.000	
OCT	43.600	44.100	44.800	45.900	
NOV	38.400	38.200	39.000	38.600	
DEC	45.000	44.800	45.400	45.400	
CHLORIDE (MG/L)			DET'N LIMIT = .200		GUIDELINE = 250 (A3)
JAN	35.900	36.500	34.800	34.500	
FEB	25.300	29.000	29.200	29.300	
MAR	23.800	25.600	25.900	26.100	
APR	25.400	28.000	27.400	27.900	
MAY	24.000	27.200	27.200	27.200	
JUN	23.200	25.200	25.600	25.600	
JUL	22.500	24.700	24.800	24.800	
AUG	21.900	24.400	24.400	24.800	
SEP	22.200	24.400	24.500	24.200	
OCT	22.700	26.700	26.300	25.800	
NOV	22.600	24.800	25.300	24.900	
DEC	24.100	27.900	28.500	28.100	
COLOUR (HZU)			DET'N LIMIT = .5		GUIDELINE = 5.0 (A3)
JAN	2.500	1.000 <T	1.000 <T	1.000 <T	
FEB	1.500 <T	BDL	BDL	BDL	
MAR	2.000 <T	1.500 <T	1.500 <T	1.000 <T	

TABLE 5

DRINKING WATER SURVEILLANCE PROGRAM AJAX WTP 1989

	WATER TREATMENT PLANT		DISTRIBUTION SYSTEM	
	RAW	TREATED	SITE 1	
			STANDING	FREE FLOW
APR	2.500	.500 <T	1.000 <T	1.000 <T
MAY	2.000 <T	.500 <T	1.000 <T	1.000 <T
JUN	1.500 <T	1.000 <T	1.000 <T	.500 <T
JUL	2.500	1.000 <T	1.500 <T	1.500 <T
AUG	1.500 <T	.500 <T	1.000 <T	.500 <T
SEP	2.000 <T	1.000 <T	1.500 <T	1.000 <T
OCT	2.000 <T	1.000 <T	1.000 <T	1.000 <T
NOV	1.500 <T	.500 <T	.500 <T	.500 <T
DEC	1.500 <T	.500 <T	.500 <T	.500 <T
DUCTIVITY (UMHO/CM)			DET'N LIMIT = 1	GUIDELINE = 400 (F2)
JAN	381	378	372	371
FEB	338	350	353	351
MAR	329	336	337	336
APR	346	356	356	356
MAY	331	338	339	338
JUN	326	332	333	332
JUL	325	333	332	331
AUG	313	321	321	325
SEP	315	323	324	323
OCT	331	346	345	342
NOV	328	336	339	337
DEC	340	353	356	354
ORIDE (MG/L)			DET'N LIMIT = .01	GUIDELINE = 2.400 (A1)
JAN	.120	.960	.820	.800
FEB	.160	1.000	.980	.940
MAR	.120	.980	1.060	.980
APR	.140	.700	.720	.740
MAY	.160	.440	.400	.340
JUN	.860	1.080	.940	1.060
JUL	.160	.820	.920	.960
AUG	.380	1.020	1.140	1.200
SEP	.140	1.540	1.120	1.540
OCT	.140	1.140	1.240	1.380
NOV	.120	1.420	1.320	1.480
DEC	.080	1.040	1.100	.860
DNESS (MG/L)			DET'N LIMIT = .500	GUIDELINE = 80-100 (A4)
JAN	143.000	144.000	139.000	140.000
FEB	135.000	136.000	135.000	139.000
MAR	136.000	137.000	136.000	136.000
APR	137.000	134.000	135.000	135.000
MAY	137.000	139.000	140.000	139.000
JUN	138.000	141.000	140.000	142.000
JUL	137.000	134.000	138.000	136.000
AUG	133.000	132.000	132.000	139.000

TABLE 5

DRINKING WATER SURVEILLANCE PROGRAM AJAX WTP 1989

	WATER TREATMENT PLANT		DISTRIBUTION SYSTEM		
	RAW	TREATED	SITE 1		
			STANDING	FREE FLOW	
SEP	128.000	129.000	131.000	130.000	
OCT	144.500	145.500	148.800	149.700	
NOV	132.000	131.000	133.000	132.000	
DEC	149.000	147.000	149.000	149.000	
IONCAL (DIMNSLESS)			DET'N LIMIT = N/A		GUIDELINE = N/A
JAN	1.448	.425	3.045	2.281	
FEB	.524	.748	.448	1.657	
MAR	.500	2.278	1.407	1.380	
APR	1.161	.305	.787	.492	
MAY	.532	1.780	2.049	1.997	
JUN	4.189	6.142	4.919	7.101	
JUL	1.468	.583	3.025	2.231	
AUG	2.009	1.150	2.057	4.777	
SEP	3.151	.037	.622	.788	
OCT	4.951	6.960	8.759	9.834	
NOV	3.982	1.956	2.046	2.436	
DEC	2.971	3.969	5.124	5.107	
LANGELIERS INDEX (DIMNSLESS)			DET'N LIMIT = N/A		GUIDELINE = N/A
JAN	.399	.354	.265	.351	
FEB	.337	.368	.336	.478	
MAR	.461	.285	.314	.301	
APR	.485	.450	.438	.421	
MAY	.461	.447	.461	.431	
JUN	.356	.330	.349	.347	
JUL	.217	.161	.207	.132	
AUG	.433	.421	.409	.387	
SEP	.429	.358	.382	.369	
OCT	.504	.484	.489	.478	
NOV	.520	.430	.421	.467	
DEC	.592	.534	.570	.552	
MAGNESIUM (MG/L)			DET'N LIMIT = .050		GUIDELINE = 30 (F2)
JAN	8.500	8.500	8.400	8.400	
FEB	8.500	8.600	8.500	8.700	
MAR	8.700	8.900	8.800	8.500	
APR	8.400	8.200	8.400	8.300	
MAY	8.300	8.500	8.600	8.400	
JUN	8.800	9.000	8.900	8.800	
JUL	8.000	8.100	8.100	8.100	
AUG	8.200	8.300	8.700	8.700	
SEP	8.200	8.300	8.400	8.400	
OCT	8.650	8.600	8.950	8.550	
NOV	8.700	8.600	8.600	8.700	
DEC	8.800	8.600	8.700	8.700	

TABLE 5

DRINKING WATER SURVEILLANCE PROGRAM AJAX WTP 1989

	WATER TREATMENT PLANT		DISTRIBUTION SYSTEM		
	RAW	TREATED	SITE 1		
			STANDING	FREE FLOW	
SODIUM (MG/L)			DET'N LIMIT = .200		GUIDELINE = 200 (C3)
JAN	19.800	19.200	17.600	17.200	
FEB	13.400	15.400	15.800	15.600	
MAR	12.800	13.800	13.800	13.800	
APR	13.400	14.800	14.800	15.000	
MAY	12.600	13.800	14.000	13.800	
JUN	12.400	13.600	13.800	14.000	
JUL	12.200	13.600	13.600	13.800	
AUG	12.400	13.400	13.000	13.000	
SEP	12.000	12.600	13.000	13.000	
OCT	12.600	15.400	14.900	14.600	
NOV	12.400	14.200	14.200	13.800	
DEC	12.600	14.600	15.000	14.800	
AMMONIUM TOTAL (MG/L)			DET'N LIMIT = 0.002		GUIDELINE = .05 (F2)
JAN	.014	.016	.014	.014	
FEB	.152	.002 <T	.074	.018	
MAR	.012	.002	.124	.002 <T	
APR	.094	.004 <T	.212	.004 <T	
MAY	.018	.004 <T	.006 <T	.006 <T	
JUN	.018	BDL	.070	BDL	
JUL	.032	BDL	.046	BDL	
AUG	.034	.002 <T	.048	.006 <T	
SEP	.016	BDL	.022	BDL	
OCT	.062	.002	.024	.002	
NOV	.010	.002 <T	BDL	BDL	
DEC	.034	BDL	.064	BDL	
NITRITE (MG/L)			DET'N LIMIT = 0.001		GUIDELINE = 1.000 (A1)
JAN	.012	.004 <T	.003 <T	.004 <T	
FEB	.009	BDL	.001 <T	BDL	
MAR	.003 <T	.001	.001 <T	.001	
APR	.010	BDL	.002 <T	.001 <T	
MAY	.005	BDL	.001 <T	.001 <T	
JUN	.027	.004 <T	.005	.004 <T	
JUL	.003 <T	BDL	.001 <T	BDL	
AUG	.007	.003 <T	.003 <T	.003 <T	
SEP	.003 <T	BDL	.001 <T	BDL	
OCT	.013	BDL	.001 <T	BDL	
NOV	.007	.002 <T	.001 <T	.001 <T	
DEC	.017	BDL	.001 <T	BDL	
TOTAL NITRATES (MG/L)			DET'N LIMIT = .020		GUIDELINE = 10.000 (A1)
JAN	.780	.570	.580	.540	
FEB	.450	.455	.565	.475	
MAR	.325	.335	.500	.335	
APR	.375	.380	.645	.375	

TABLE 5

DRINKING WATER SURVEILLANCE PROGRAM AJAX WTP 1989

	WATER TREATMENT PLANT		DISTRIBUTION SYSTEM		
	RAW	TREATED	SITE 1		
			STANDING	FREE FLOW	
MAY	.340	.350	.345	.340	
JUN	.355	.330	.490	.305	
JUL	.190	.190	.250	.195	
AUG	.150	.170	.235	.165	
SEP	.205	.215	.255	.200	
OCT	.410	.420	.470	.440	
NOV	.380	.375	.375	.375	
DEC	.450	.450	.545	.440	
NITROGEN TOT KJELD (MG/L)			DET'N LIMIT = .020		GUIDELINE = N/A
JAN	.310	.160	.170	.150	
FEB	.380	.170	.250	.160	
MAR	.250	.170	.300	.170	
APR	.360	.180	.390	.190	
MAY	.270	.180	.210	.190	
JUN	.260	.170	.270	.160	
JUL	.300	.180	.230	.160	
AUG	.270	.200	.250	.190	
SEP	.280	.200	.260	.200	
OCT	.270	.150	.220	.170	
NOV	.170	.170	.110	.140	
DEC	.330	.210	.250	.190	
PH (DIMNSLESS)			DET'N LIMIT = N/A		GUIDELINE = 6.5-8.5(A4)
JAN	8.190	8.160	8.090	8.170	
FEB	8.170	8.210	8.180	8.310	
MAR	8.300	8.140	8.170	8.150	
APR	8.310	8.290	8.280	8.260	
MAY	8.290	8.280	8.290	8.260	
JUN	8.200	8.170	8.190	8.180	
JUL	8.030	8.000	8.030	7.970	
AUG	8.290	8.290	8.290	8.240	
SEP	8.300	8.250	8.260	8.260	
OCT	8.300	8.290	8.290	8.270	
NOV	8.370	8.300	8.280	8.330	
DEC	8.360	8.330	8.360	8.340	
PHOSPHORUS FIL REACT (MG/L)			DET'N LIMIT = .0005		GUIDELINE = N/A
JAN	.003	.000 <T	.	.	
FEB	.004	.002 <T	.	.	
MAR	.000	.000	.	.	
APR	BDL	.000 <T	.	.	
MAY	.000 <T	BDL	.	.	
JUN	.001 <T	BDL	.	.	
JUL	BDL	BDL	.	.	
AUG	BDL	.001 <T	.	.	
SEP	BDL	.000 <T	.	.	

TABLE 5

DRINKING WATER SURVEILLANCE PROGRAM AJAX WTP 1989

	WATER TREATMENT PLANT		DISTRIBUTION SYSTEM	
	RAW	TREATED	SITE 1	
			STANDING	FREE FLOW
OCT	.001 <T	.004	.	.
NOV	.002 <T	.001 <T	.	.
DEC	BDL	BDL	.	.
PHOSPHORUS TOTAL (MG/L)			DET'N LIMIT = .002	GUIDELINE = .40 (F2)
JAN	.054	.009 <T	.	.
FEB	.019	BDL	.	.
MAR	.011	.004 <T	.	.
APR	.015	.005 <T	.	.
MAY	.008 <T	.002 <T	.	.
JUN	.019	.010	.	.
JUL	.014	.006 <T	.	.
AUG	.013	.009 <T	.	.
SEP	.009 <T	.005 <T	.	.
OCT	.007 <T	.008 <T	.	.
NOV	.004 <T	BDL	.	.
DEC	.017	.008 <T	.	.
SULPHATE (MG/L)			DET'N LIMIT = .200	GUIDELINE = 500. (A3)
JAN	29.650	30.150	29.830	29.580
FEB	25.600	25.270	25.910	25.780
MAR	27.110	27.040	27.620	26.940
APR	24.450	24.200	24.440	24.760
MAY	26.200	26.630	27.210	27.080
JUN	25.860	26.160	26.370	26.250
JUL	25.850	26.300	26.510	26.790
AUG	26.660	27.320	27.410	27.960
SEP	26.220	26.450	26.480	26.570
OCT	27.180	27.960	27.980	28.000
NOV	28.210	28.930	29.770	29.480
DEC	28.350	29.980	29.670	29.710
TURBIDITY (FTU)			DET'N LIMIT = .02	GUIDELINE = 1.00 (A1)
JAN	18.000	.380	.350	.300
FEB	2.800	.770	.730	.460
MAR	1.350	.450	.400	.500
APR	3.000	.380	.490	.410
MAY	1.750	.600	.800	.550
JUN	1.570	.390	.750	.550
JUL	.900	.280	.380	.180
AUG	1.820	.430	.330	.730
SEP	.940	.260	.290	.250
OCT	.710	.810	.360	.410
NOV	.710	.140 <T	.110 <T	.100 <T
DEC	2.000	.540	.440	.450

TABLE 5

DRINKING WATER SURVEILLANCE PROGRAM AJAX WTP 1989

	WATER TREATMENT PLANT		DISTRIBUTION SYSTEM	
	RAW	TREATED	SITE 1	
			STANDING	FREE FLOW
METALS				
SILVER (UG/L)			DET'N LIMIT = .020	GUIDELINE = 50. (A1)
JAN	BDL	BDL	BDL	BDL
FEB	.050 <T	.100 <T	.060 <T	.100 <T
MAR	BDL	.050 <T	.040 <T	.050 <T
APR	BDL	.030 <T	BDL	.060 <T
MAY	BDL	.050 <T	BDL	.040 <T
JUN	.050 <T	BDL	.050 <T	BDL
JUL	BDL	BDL	.040 <T	BDL
AUG	BDL	BDL	BDL	BDL
SEP	BDL	BDL	BDL	BDL
OCT	BDL	BDL	BDL	BDL
NOV	BDL	BDL	BDL	BDL
DEC	BDL	BDL	BDL	BDL
ALUMINUM (UG/L)			DET'N LIMIT = .050	GUIDELINE = 100.(A4)
JAN	185.600	88.160	74.240	59.160
FEB	40.600	69.600	61.480	68.440
MAR	13.920	107.880	116.000	113.680
APR	38.280	150.800	150.800	139.200
MAY	59.160	266.800	266.800	255.200
JUN	92.000	160.000	200.000	150.000
JUL	59.000	110.000	120.000	91.000
AUG	44.000	390.000	290.000	260.000
SEP	9.300	140.000	190.000	160.000
OCT	9.700	64.000	71.000	64.000
NOV	6.800	60.000	68.000	62.000
DEC	25.000	86.000	90.000	100.000
ARSENIC (UG/L)			DET'N LIMIT = 0.050	GUIDELINE = 50.0 (A1)
JAN	1.100	.760 <T	.790 <T	.610 <T
FEB	1.700	1.500	1.400	1.500
MAR	1.900	1.300	1.100	1.500
APR	1.300	1.400	1.200	1.300
MAY	1.600	1.100	1.200	.880 <T
JUN	1.800	1.300	1.200	1.400
JUL	1.200	.790 <T	1.000 <T	.890 <T
AUG	1.400	1.500	1.500	1.300
SEP	1.000 <T	1.200	1.100	1.600
OCT	.750 <T	1.000 <T	.950 <T	1.100
NOV	.750 <T	.620 <T	.580 <T	.680 <T
DEC	.770 <T	.440 <T	.480 <T	.510 <T
BARIUM (UG/L)			DET'N LIMIT = 0.020	GUIDELINE = 1000. (A1)
JAN	28.000	25.000	24.000	24.000
FEB	24.000	24.000	24.000	24.000
MAR	23.000	22.000	22.000	22.000

TABLE 5

DRINKING WATER SURVEILLANCE PROGRAM AJAX WTP 1989

	WATER TREATMENT PLANT		DISTRIBUTION SYSTEM	
	RAW	TREATED	SITE 1	
			STANDING	FREE FLOW
APR	25.000	24.000	23.000	23.000
MAY	24.000	23.000	24.000	22.000
JUN	25.000	25.000	24.000	24.000
JUL	25.000	24.000	25.000	24.000
AUG	23.000	23.000	23.000	23.000
SEP	20.000	21.000	20.000	23.000
OCT	22.000	22.000	22.000	23.000
NOV	21.000	21.000	22.000	22.000
DEC	23.000	21.000	22.000	22.000
N (UG/L)			DET'N LIMIT = 0.200 GUIDELINE = 5000. (A1)	
JAN	50.000	54.000	51.000	30.000
FEB	24.000	65.000	61.000	66.000
MAR	65.000	63.000	34.000	67.000
APR	190.000	170.000	130.000	210.000
MAY	80.000	30.000	89.000	58.000
JUN	49.000	41.000	48.000	45.000
JUL	47.000	47.000	47.000	29.000
AUG	50.000	49.000	41.000	49.000
SEP	23.000	59.000	28.000	61.000
OCT	26.000	26.000	26.000	32.000
NOV	24.000	24.000	23.000	24.000
DEC	26.000	26.000	28.000	33.000
LLIUM (UG/L)			DET'N LIMIT = 0.010 GUIDELINE = N/A	
JAN	.060 <T	BDL	BDL	BDL
FEB	BDL	.200 <T	.140 <T	.140 <T
MAR	.140 <T	.050 <T	.040 <T	.160 <T
APR	.180 <T	.090 <T	.140 <T	.200 <T
MAY	.230 <T	.210 <T	.490 <T	.140 <T
JUN	.050 <T	BDL	.100 <T	.060 <T
JUL	.060 <T	.040 <T	.040 <T	BDL
AUG	.140 <T	.190 <T	.170 <T	.190 <T
SEP	.090 <T	.220 <T	.090 <T	BDL
OCT	BDL	BDL	BDL	BDL
NOV	.030 <T	.020 <T	BDL	BDL
DEC	BDL	BDL	.020 <T	BDL
IUM (UG/L)			DET'N LIMIT = 0.050 GUIDELINE = 5.000 (A1)	
JAN	.070 <T	BDL	.060 <T	BDL
FEB	.120 <T	BDL	.260 <T	.080 <T
MAR	.060 <T	BDL	.090 <T	BDL
APR	BDL	BDL	.130 <T	.120 <T
MAY	.220 <T	BDL	.130 <T	.150 <T
JUN	BDL	.090 <T	.090 <T	BDL
JUL	BDL	BDL	.140 <T	BDL
AUG	.070 <T	BDL	.060 <T	.090 <T

TABLE 5

DRINKING WATER SURVEILLANCE PROGRAM AJAX WTP 1989

	WATER TREATMENT PLANT		DISTRIBUTION SYSTEM	
	RAW	TREATED	SITE 1	
			STANDING	FREE FLOW
SEP	.060 <T	BDL	.150 <T	.120 <T
OCT	.060 <T	BDL	BDL	BDL
NOV	.100 <T	.120 <T	BDL	BDL
DEC	BDL	BDL	BDL	BDL
COBALT (UG/L)			DET'N LIMIT = 0.020 GUIDELINE = N/A	
JAN	.340 <T	.160 <T	.190 <T	.140 <T
FEB	.270 <T	.250 <T	.220 <T	.240 <T
MAR	.160 <T	.170 <T	.150 <T	.170 <T
APR	.120 <T	.110 <T	.080 <T	.100 <T
MAY	.070 <T	.080 <T	.190 <T	.090 <T
JUN	.090 <T	.060 <T	BDL	.060 <T
JUL	.180 <T	.200 <T	.150 <T	.200 <T
AUG	.100 <T	.110 <T	.070 <T	.030 <T
SEP	.120 <T	.070 <T	.090 <T	.100 <T
OCT	.040 <T	.060 <T	.080 <T	.050 <T
NOV	BDL	BDL	.040 <T	.090 <T
DEC	.060 <T	.070 <T	.080 <T	.040 <T
CHROMIUM (UG/L)			DET'N LIMIT = 0.100 GUIDELINE = 50. (A1)	
JAN	5.400	5.300	5.200	.520 <T
FEB	.610 <T	7.600	6.500	7.500
MAR	6.600	6.300	2.200	6.800
APR	6.900	6.200	4.800	7.600
MAY	10.000	.880 <T	10.000	6.600
JUN	5.100	3.500	4.700	4.000
JUL	5.800	6.000	5.800	1.300
AUG	4.700	4.400	2.900	4.400
SEP	.640 <T	5.500	1.200	5.500
OCT	.870 <T	.430 <T	.400 <T	3.400
NOV	.520 <T	.460 <T	.520 <T	.490 <T
DEC	.300 <T	.310 <T	.860 <T	1.900
COPPER (UG/L)			DET'N LIMIT = .100 GUIDELINE = 1000 (A3)	
JAN	7.700	3.400	13.000	5.900
FEB	3.900	2.700	31.000	5.200
MAR	2.300	1.300	7.800	2.800
APR	3.100	1.900	13.000	3.000
MAY	5.100	1.700	13.000	2.800
JUN	3.200	1.400	16.000	3.200
JUL	2.700	1.600	22.000	4.300
AUG	2.600	1.300	21.000	4.500
SEP	2.200	1.100	12.000	3.400
OCT	2.800	1.200	40.000	6.400
NOV	2.200	1.200	20.000	6.000
DEC	3.700	1.400	36.000	6.500

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DRINKING WATER SURVEILLANCE PROGRAM AJAX WTP 1989

WATER TREATMENT PLANT		DISTRIBUTION SYSTEM		
	RAW	TREATED	SITE 1	
			STANDING	FREE FLOW
(UG/L)			DET'N LIMIT = 4.000 GUIDELINE = 300. (A3)	
JAN	350.000	18.000 <T	20.000 <T	16.000 <T
FEB	85.000	BDL	BDL	BDL
MAR	29.000 <T	8.700 <T	8.900 <T	BDL
APR	38.000 <T	BDL	26.000 <T	BDL
MAY	21.000 <T	8.100 <T	BDL	11.000 <T
JUN	27.000 <T	7.800 <T	9.200 <T	11.000 <T
JUL	14.000 <T	BDL	10.000 <T	6.200 <T
AUG	5.600 <T	BDL	BDL	BDL
SEP	11.000 <T	BDL	5.600 <T	BDL
OCT	19.000 <T	BDL	9.100 <T	7.800 <T
NOV	13.000 <T	BDL	5.600 <T	BDL
DEC	34.000 <T	6.200 <T	9.000 <T	6.600 <T
CURY (UG/L)			DET'N LIMIT = 0.010 GUIDELINE = 1.000 (A1)	
JAN	BDL	BDL	.	BDL
FEB	BDL	BDL	.	BDL
MAR	BDL	BDL	.	BDL
APR	BDL	BDL	.	BDL
MAY	BDL	BDL	.	BDL
JUN	.020 <T	.020 <T	.	.020 <T
JUL	BDL	BDL	.	BDL
AUG	BDL	BDL	.	BDL
SEP	BDL	BDL	.	BDL
OCT	BDL	BDL	.	BDL
NOV	BDL	BDL	.	.020 <T
DEC	.040 <T	.020 <T	.	.020 <T
ANESE (UG/L)			DET'N LIMIT = .050 GUIDELINE = 50.0 (A3)	
JAN	18.000	1.000	1.300	.950
FEB	5.100	.520	.690	.600
MAR	1.500	.280 <T	.600	.330 <T
APR	3.700	.420 <T	.530	.420 <T
MAY	2.400	.310 <T	.430 <T	.490 <T
JUN	2.900	.420 <T	.740	.500 <T
JUL	3.000	.680	1.200	.550
AUG	1.200	.580	.670	.420 <T
SEP	1.600	.550	.750	.540
OCT	2.200	.520	.950	.930
NOV	1.300	.210 <T	.620	.550
DEC	2.400	.290 <T	.750	.520
BDENUM (UG/L)			DET'N LIMIT = 0.020 GUIDELINE = N/A	
JAN	1.100	1.300	1.200	1.300
FEB	1.400	1.700	1.700	1.700
MAR	1.400	1.400	1.400	1.400
APR	1.400	1.500	1.400	1.600

TABLE 5

DRINKING WATER SURVEILLANCE PROGRAM AJAX WTP 1989

	WATER TREATMENT PLANT		DISTRIBUTION SYSTEM	
	RAW	TREATED	SITE 1	
			STANDING	FREE FLOW
MAY	1.400	1.400	1.600	1.600
JUN	1.500	1.600	1.800	1.600
JUL	1.500	1.500	1.700	1.500
AUG	1.500	1.500	1.500	1.500
SEP	1.200	1.200	1.300	1.400
OCT	1.300	1.300	1.200	1.300
NOV	1.100	1.200	1.300	1.300
DEC	1.200	1.200	1.300	1.300
NICKEL (UG/L)			DET'N LIMIT = 0.100	GUIDELINE = 50. (F3)
JAN	2.200	1.500 <T	1.500 <T	1.700 <T
FEB	2.500	2.100	2.300	2.000 <T
MAR	1.700 <T	1.700 <T	1.900 <T	1.900 <T
APR	1.600 <T	1.200 <T	.930 <T	1.200 <T
MAY	1.400 <T	1.100 <T	1.600 <T	2.000 <T
JUN	.340 <T	BDL	.130 <T	BDL
JUL	2.100	2.200	2.000 <T	1.900 <T
AUG	.950 <T	.830 <T	.580 <T	.820 <T
SEP	1.200 <T	1.200 <T	1.200 <T	1.400 <T
OCT	.950 <T	1.400 <T	1.600 <T	1.300 <T
NOV	1.700 <T	1.800 <T	1.800 <T	2.700
DEC	1.400 <T	2.200	1.900 <T	1.500 <T
LEAD (UG/L)			DET'N LIMIT = 0.050	GUIDELINE = 50. (A1)
JAN	1.900	.130 <T	.920	.200 <T
FEB	.990	BDL	1.600	.310
MAR	.230	.040 <T	.680	.130 <T
APR	.260	BDL	.780	.210
MAY	.310	BDL	.760	.160 <T
JUN	.480	.220	1.300	.520
JUL	.170 <T	.060 <T	1.200	.330
AUG	.060 <T	.090 <T	1.200	.360
SEP	.070 <T	BDL	.880	.470
OCT	.300	.060 <T	.700	.240
NOV	.090 <T	BDL	.680	.630
DEC	.190 <T	.060 <T	.860	.230
ANTIMONY (UG/L)			DET'N LIMIT = .050	GUIDELINE = 146. (D4)
JAN	.330	.380	.500	.480
FEB	.990	.980	.960	.960
MAR	.690	.730	.830	.740
APR	.740	.630	.610	.620
MAY	1.000	1.100	1.200	.960
JUN	1.100	.890	.970	.850
JUL	.890	.880	1.100	.930
AUG	.730	.850	.800	.850
SEP	.610	.570	.650	.780

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DRINKING WATER SURVEILLANCE PROGRAM AJAX WTP 1989

	WATER TREATMENT PLANT		DISTRIBUTION SYSTEM	
	RAW	TREATED	SITE 1	
			STANDING	FREE FLOW
OCT	.730	.550	.770	.550
NOV	.380	.400	.420	.400
DEC	.540	.590	.680	.560
SELENIUM (UG/L)			DET'N LIMIT = 0.200 GUIDELINE = 10. (A1)	
JAN	.950 <T	1.600 <T	2.100 <T	2.400 <T
FEB	1.100 <T	3.900 <T	2.500 <T	4.800 <T
MAR	2.500 <T	2.300 <T	3.300 <T	3.300 <T
APR	.860 <T	3.100 <T	5.200 <T	3.900 <T
MAY	2.600 <T	6.300 <T	6.500 <T	9.600 <T
JUN	BDL	2.500 <T	4.100 <T	2.600 <T
JUL	1.800 <T	3.500 <T	4.300 <T	3.000 <T
AUG	1.300 <T	4.200 <T	5.000 <T	3.300 <T
SEP	BDL	1.300 <T	1.800 <T	2.300 <T
OCT	BDL	BDL	BDL	BDL
NOV	BDL	BDL	BDL	BDL
DEC	BDL	1.200 <T	1.100 <T	BDL
STRONTIUM (UG/L)			DET'N LIMIT = .050 GUIDELINE = N/A	
JAN	180.000	170.000	170.000	170.000
FEB	190.000	180.000	180.000	180.000
MAR	180.000	180.000	180.000	180.000
APR	180.000	180.000	180.000	190.000
MAY	180.000	190.000	200.000	190.000
JUN	190.000	190.000	190.000	190.000
JUL	200.000	200.000	200.000	190.000
AUG	180.000	180.000	170.000	180.000
SEP	170.000	170.000	180.000	180.000
OCT	180.000	180.000	170.000	180.000
NOV	170.000	170.000	170.000	180.000
DEC	180.000	170.000	170.000	180.000
TITANIUM (UG/L)			DET'N LIMIT = .050 GUIDELINE = N/A	
JAN	11.000	4.600	4.000	3.400
FEB	8.000	6.400	6.800	6.300
MAR	6.500	5.600	4.900	5.200
APR	9.200	8.200	7.700	8.200
MAY	3.900	5.000	4.400	4.400
JUN	8.500	7.100	6.900	7.100
JUL	5.900	5.400	5.600	5.200
AUG	5.000	5.400	5.500	5.400
SEP	8.300	8.700	8.600	8.200
OCT	3.900	3.700	3.600	3.900
NOV	3.500	3.400	3.000	3.200
DEC	5.100	4.100	3.900	4.100
THALLIUM (UG/L)			DET'N LIMIT = .010 GUIDELINE = 13. (D4)	

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DRINKING WATER SURVEILLANCE PROGRAM AJAX WTP 1989

	WATER TREATMENT PLANT		DISTRIBUTION SYSTEM	
	RAW	TREATED	SITE 1	
			STANDING	FREE FLOW
JAN	BDL	BDL	BDL	BDL
FEB	.080 <T	.060 <T	.090 <T	.180 <T
MAR	BDL	BDL	BDL	BDL
APR	BDL	BDL	BDL	BDL
MAY	BDL	BDL	BDL	BDL
JUN	BDL	BDL	BDL	BDL
JUL	BDL	BDL	BDL	BDL
AUG	.080 <T	.080 <T	.070 <T	.070 <T
SEP	BDL	BDL	BDL	BDL
OCT	.020 <T	BDL	BDL	BDL
NOV	.030 <T	BDL	BDL	.020 <T
DEC	BDL	BDL	BDL	BDL
URANIUM (UG/L)			DET'N LIMIT = .020	GUIDELINE = 100.(B!)
JAN	.430	.250	.220	.240
FEB	.710	.590	.610	.640
MAR	.450	.440	.450	.450
APR	.590	.670	.590	.530
MAY	.490	.460	.420	.440
JUN	.660	.520	.630	.510
JUL	.490	.480	.480	.570
AUG	.520	.640	.570	.420
SEP	.430	.420	.440	.430
OCT	.300	.290	.270	.320
NOV	.340	.240	.340	.320
DEC	.330	.270	.230	.230
VANADIUM (UG/L)			DET'N LIMIT = .050	GUIDELINE = N/A
JAN	.990	.410 <T	.400 <T	.390 <T
FEB	.460 <T	.390 <T	.350 <T	.380 <T
MAR	.360 <T	.280 <T	.240 <T	.300 <T
APR	.410 <T	.260 <T	.270 <T	.310 <T
MAY	.340 <T	.260 <T	.330 <T	.260 <T
JUN	.290 <T	.260 <T	.220 <T	.220 <T
JUL	.450 <T	.430 <T	.440 <T	.430 <T
AUG	.330 <T	.350 <T	.370 <T	.410 <T
SEP	.190 <T	.240 <T	.260 <T	.270 <T
OCT	.280 <T	.220 <T	.250 <T	.280 <T
NOV	.230 <T	.210 <T	.240 <T	.240 <T
DEC	.330 <T	.320 <T	.360 <T	.260 <T
ZINC (UG/L)			DET'N LIMIT = .001	GUIDELINE = 5000. (A3)
JAN	7.200	2.400	4.100	2.000
FEB	4.300	3.000	7.100	2.600
MAR	2.200	2.000	3.200	1.500
APR	2.900	2.400	4.600	2.100
MAY	3.400	2.700	4.200	2.700

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DRINKING WATER SURVEILLANCE PROGRAM AJAX WTP 1989

	WATER TREATMENT PLANT		DISTRIBUTION SYSTEM	
	RAW	TREATED	SITE 1	
			STANDING	FREE FLOW
JUN	3.200	2.800	6.300	2.800
JUL	2.800	2.700	5.000	2.700
AUG	1.800	2.000	5.200	2.100
SEP	1.100	1.600	4.800	1.800
OCT	1.600	1.400	5.100	1.800
NOV	1.500	1.800	3.900	3.300
DEC	1.600	1.400	3.800	1.900

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DRINKING WATER SURVEILLANCE PROGRAM AJAX WTP 1989

	WATER TREATMENT PLANT		DISTRIBUTION SYSTEM	
	RAW	TREATED	SITE 1	
			STANDING	FREE FLOW
PAH				
BENZO(K) FLUORANTHEN (NG/L)			DET'N LIMIT = N/A	GUIDELINE = 2.8 (D4T)
JAN	BDL	2.000 <T	.	.
FEB	BDL	BDL	.	.
MAR	BDL	BDL	.	.
APR	BDL	BDL	.	.
MAY	BDL	BDL	.	.
JUN	BDL	BDL	.	.
JUL	BDL	BDL	.	.
AUG	BDL	BDL	.	.
SEP	BDL	BDL	.	.
OCT	BDL	BDL	.	.
NOV	BDL	BDL	.	.
DEC	BDL	BDL	.	.

TABLE 5

DRINKING WATER SURVEILLANCE PROGRAM AJAX WTP 1989

	WATER TREATMENT PLANT		DISTRIBUTION SYSTEM	
	RAW	TREATED	SITE 1	
			STANDING	FREE FLOW
PESTICIDES & PCB				
ALPHA BHC (NG/L)			**DET'N LIMIT = 1.000**	**GUIDELINE = 700 (G)**
JAN	2.000 <T	BDL	.	BDL
FEB	2.000 <T	3.000 <T	.	3.000 <T
MAR	3.000 <T	BDL	.	2.000 <T
APR	1.000 <T	BDL	.	2.000 <T
MAY	BDL	BDL	.	BDL
JUN	2.000 <T	2.000 <T	.	1.000 <T
JUL	2.000 <T	2.000 <T	.	2.000 <T
AUG	2.000 <T	BDL	.	2.000 <T
SEP	1.000 <T	2.000 <T	.	BDL
OCT	BDL	1.000 <T	.	BDL
NOV	BDL	1.000 <T	.	2.000 <T
DEC	2.000 <T	1.000 <T	.	2.000 <T
LINDANE (NG/L)			**DET'N LIMIT = 1.000**	**GUIDELINE = 4000 (A1)**
JAN	BDL	BDL	.	BDL
FEB	BDL	2.000 <T	.	1.000 <T
MAR	BDL	BDL	.	BDL
APR	BDL	BDL	.	BDL
MAY	BDL	BDL	.	BDL
JUN	BDL	BDL	.	BDL
JUL	BDL	BDL	.	BDL
AUG	BDL	BDL	.	BDL
SEP	BDL	BDL	.	BDL
OCT	BDL	BDL	.	BDL
NOV	BDL	BDL	.	BDL
DEC	BDL	BDL	.	BDL

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DRINKING WATER SURVEILLANCE PROGRAM AJAX WTP 1989

	WATER TREATMENT PLANT		DISTRIBUTION SYSTEM			
	RAW	TREATED	SITE 1			
			STANDING		FREE FLOW	
PHENOLICS (UG/L PHENOLICS)			DET'N LIMIT = 0.2			GUIDELINE = 2.00 (A3)
JAN	1.000	1.000	.		.	
FEB	1.600	IRE	.		.	
MAR	.600 <T	.400 <T	.		.	
APR	IPR	1.000	.		.	
MAY	.400 <T	.600 <T	.		.	
JUN	1.200	.800 <T	.		.	
JUL	1.600	2.000	.		.	
AUG	1.000	1.600	.		.	
SEP	2.400	3.000	.		.	
OCT	15.600	1.000	.		.	
NOV	.800 <T	1.000 <T	.		.	
DEC	.600 <T	2.000	.		.	

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DRINKING WATER SURVEILLANCE PROGRAM AJAX WTP 1989

	WATER TREATMENT PLANT		DISTRIBUTION SYSTEM	
	RAW	TREATED	SITE 1	
			STANDING	FREE FLOW
VOLATILES				
TOLUENE (UG/L)				DET'N LIMIT = .050 GUIDELINE = 24.0 (B4)
JAN	BDL	BDL	.	.050 <T
FEB	BDL	BDL	.	BDL
MAR	BDL	BDL	.	.050 <T
APR	.100 <T	BDL	.	BDL
MAY	BDL	BDL	.	BDL
JUN	BDL	.050 <T	.	.100 <T
JUL	.100 <T	.100 <T	.	.
AUG	BDL	BDL	.	BDL
SEP	BDL	BDL	.	ILA
OCT	BDL	.050 <T	.	.100 <T
NOV	BDL	BDL	.	BDL
DEC	BDL	BDL	.	IU
ETHYLBENZENE (UG/L)				DET'N LIMIT = .050 GUIDELINE = 2.4 (B4)
JAN	BDL	BDL	.	.150 <T
FEB	BDL	.050 <T	.	.050 <T
MAR	BDL	BDL	.	.050 <T
APR	.100 <T	.100 <T	.	.150 <T
MAY	BDL	BDL	.	BDL
JUN	BDL	.150 <T	.	.050 <T
JUL	.100 <T	.050 <T	.	.
AUG	BDL	BDL	.	BDL
SEP	BDL	BDL	.	ILA
OCT	BDL	BDL	.	BDL
NOV	BDL	BDL	.	BDL
DEC	BDL	BDL	.	IU
O-XYLENE (UG/L)				DET'N LIMIT = .050 GUIDELINE = 300 (B4)
JAN	BDL	BDL	.	BDL
FEB	BDL	BDL	.	BDL
MAR	BDL	BDL	.	BDL
APR	BDL	.050 <T	.	BDL
MAY	BDL	BDL	.	BDL
JUN	BDL	BDL	.	BDL
JUL	BDL	BDL	.	.
AUG	BDL	BDL	.	BDL
SEP	BDL	BDL	.	ILA
OCT	BDL	BDL	.	BDL
NOV	BDL	BDL	.	BDL
DEC	BDL	BDL	.	IU
STYRENE (UG/L)				DET'N LIMIT = .050 GUIDELINE = 46.5 (D2)
JAN	BDL	BDL	.	.100 <T
FEB	BDL	BDL	.	BDL
MAR	.150 <T	.100 <T	.	.150 <T

TABLE 5

DRINKING WATER SURVEILLANCE PROGRAM AJAX WTP 1989

	WATER TREATMENT PLANT		DISTRIBUTION SYSTEM		
	RAW	TREATED	SITE 1		
			STANDING	FREE FLOW	
APR	.450 <T	.150 <T	.	.350 <T	
MAY	.150 <T	.100 <T	.	.150 <T	
JUN	BDL	.350 <T	.	.100 <T	
JUL	.600 UCS	.100 <T	.	.	
AUG	BDL	BDL	.	.050 <T	
SEP	.100 <T	BDL	.	ILA	
OCT	.050 <T	BDL	.	BDL	
NOV	BDL	.050 <T	.	BDL	
DEC	BDL	.050 <T	.	IU	
CHLOROFORM (UG/L)				DET'N LIMIT = .100	GUIDELINE = 350 (A1+)
JAN	BDL	15.000	.	12.700	
FEB	BDL	19.800	.	16.500	
MAR	BDL	17.100	.	18.400	
APR	.200 <T	27.500	.	16.900	
MAY	BDL	24.200	.	15.100	
JUN	BDL	16.800	.	17.200	
JUL	.300 <T	13.000	.	.	
AUG	BDL	20.100	.	14.600	
SEP	.100 <T	15.300	.	ILA	
OCT	BDL	21.400	.	14.500	
NOV	BDL	16.000	.	13.900	
DEC	BDL	11.800	.	IU	
111, TRICHLOROETHANE (UG/L)				DET'N LIMIT = .020	GUIDELINE = 200 (D1)
JAN	BDL	BDL	.	BDL	
FEB	BDL	BDL	.	BDL	
MAR	BDL	BDL	.	BDL	
APR	.060 <T	BDL	.	BDL	
MAY	BDL	BDL	.	BDL	
JUN	BDL	BDL	.	BDL	
JUL	BDL	BDL	.	.	
AUG	BDL	BDL	.	BDL	
SEP	.040 <T	BDL	.	ILA	
OCT	.020 <T	BDL	.	BDL	
NOV	BDL	BDL	.	BDL	
DEC	.040 <T	BDL	.	IU	
DICHLOROBROMOMETHANE (UG/L)				DET'N LIMIT = .050	GUIDELINE = 350 (A1+)
JAN	BDL	10.750	.	9.900	
FEB	BDL	12.100	.	12.650	
MAR	BDL	13.600	.	13.750	
APR	BDL	17.000	.	13.000	
MAY	BDL	12.800	.	10.800	
JUN	BDL	12.300	.	12.250	
JUL	.100 <T	9.600	.	.	
AUG	BDL	12.200	.	9.700	

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DRINKING WATER SURVEILLANCE PROGRAM AJAX WTP 1989

	WATER TREATMENT PLANT		DISTRIBUTION SYSTEM	
	RAW	TREATED	SITE 1	
			STANDING	FREE FLOW
SEP	BDL	10.700	.	ILA
OCT	BDL	13.600	.	11.150
NOV	BDL	12.450	.	11.400
DEC	BDL	10.550	.	IU
CHLORODIBROMOMETHANE (UG/L)				DET'N LIMIT = .100 GUIDELINE = 350 (A1+)
JAN	BDL	5.500	.	5.400
FEB	BDL	5.200	.	5.600
MAR	BDL	7.500	.	7.300
APR	BDL	7.500	.	7.000
MAY	BDL	5.900	.	5.700
JUN	BDL	6.400	.	6.200
JUL	BDL	5.700	.	.
AUG	BDL	6.700	.	5.700
SEP	BDL	6.200	.	ILA
OCT	BDL	6.400	.	6.100
NOV	BDL	6.600	.	6.200
DEC	BDL	5.700	.	IU
T-CHLOROETHYLENE (UG/L)				DET'N LIMIT = .050 GUIDELINE = 10.0 (C2)
JAN	BDL	BDL	.	BDL
FEB	BDL	BDL	.	BDL
MAR	BDL	BDL	.	BDL
APR	BDL	BDL	.	BDL
MAY	BDL	BDL	.	BDL
JUN	BDL	.050 <T	.	BDL
JUL	BDL	BDL	.	.
AUG	BDL	BDL	.	BDL
SEP	BDL	BDL	.	ILA
OCT	BDL	BDL	.	BDL
NOV	BDL	BDL	.	BDL
DEC	BDL	BDL	.	IU
BROMOFORM (UG/L)				DET'N LIMIT = .200 GUIDELINE = 350 (A1+)
JAN	BDL	.600 <T	.	.800 <T
FEB	BDL	.600 <T	.	.600 <T
MAR	BDL	1.000 <T	.	.800 <T
APR	BDL	1.000 <T	.	1.000 <T
MAY	BDL	.600 <T	.	.800 <T
JUN	BDL	.600 <T	.	.600 <T
JUL	BDL	.800 <T	.	.
AUG	BDL	.800 <T	.	.800 <T
SEP	BDL	.600 <T	.	ILA
OCT	BDL	.800 <T	.	1.000 <T
NOV	BDL	1.000 <T	.	1.000 <T
DEC	BDL	.800 <T	.	IU

TABLE 5

DRINKING WATER SURVEILLANCE PROGRAM AJAX WTP 1989

	WATER TREATMENT PLANT		DISTRIBUTION SYSTEM		
	RAW	TREATED	SITE 1		
			STANDING	FREE FLOW	
1,4 DICHLOROBENZENE (UG/L)				DET'N LIMIT = .100	GUIDELINE = 5.0 (B1)
JAN	BDL	BDL	.	BDL	
FEB	BDL	BDL	.	BDL	
MAR	BDL	BDL	.	BDL	
APR	BDL	BDL	.	BDL	
MAY	BDL	BDL	.	BDL	
JUN	BDL	BDL	.	.500 <T	
JUL	BDL	BDL	.	.	
AUG	BDL	BDL	.	.200 <T	
SEP	BDL	BDL	.	ILA	
OCT	BDL	BDL	.	BDL	
NOV	BDL	BDL	.	BDL	
DEC	BDL	BDL	.	IU	
TOTL TRIHALOMETHANES (UG/L)				DET'N LIMIT = .500	GUIDELINE = 350 (A1)
JAN	BDL	31.850	.	28.800	
FEB	BDL	37.700	.	35.350	
MAR	BDL	39.200	.	40.250	
APR	BDL	53.000	.	37.900	
MAY	BDL	43.500	.	32.400	
JUN	BDL	36.100	.	36.250	
JUL	BDL	29.100	.	.	
AUG	BDL	39.800	.	30.800	
SEP	BDL	32.800	.	ILA	
OCT	BDL	42.200	.	32.750	
NOV	BDL	36.050	.	32.500	
DEC	BDL	28.750	.	IU	

TRACE LEVELS OF TOLUENE ARE LABORATORY ARTIFACTS DERIVED FROM THE ANALYTICAL METHODOLOGY.

TRACE LEVELS OF STYRENE ARE CONSIDERED TO BE LABORATORY ARTIFACTS RESULTING FROM THE LABORATORY SHIPPING CONTAINERS.

Table 6

SCAN/PARAMETER	UNIT	DETECTION LIMIT	GUIDELINE
BACTERIOLOGICAL			
FECAL COLIFORM MEMBRANE FILTRATION	CT/100ML	0	0 (A1)
STANDARD PLATE COUNT MEMBRANE FILTRATION	CT/ML	0	500/ML (A1)
TOTAL COLIFORM MEMBRANE FILTRATION	CT/100ML	0	5/100mL (A1)
TOTAL COLIFORM BACKGROUND MF	CT/100ML	0	N/A
CHLOROAROMATICS			
HEXACHLOROBUTADIENE	NG/L	1.000	450. (D4)
1,2,3-TRICHLOROBENZENE	NG/L	5.000	10000 (I)
1,2,3,4-TETRACHLOROBENZENE	NG/L	1.000	10000 (I)
1,2,3,5-TETRACHLOROBENZENE	NG/L	1.000	10000 (I)
1,2,4-TRICHLOROBENZENE	NG/L	5.000	10000 (I)
1,2,4,5-TETRACHLOROBENZENE	NG/L	1.000	38000 (D4)
1,3,5-TRICHLOROBENZENE	NG/L	5.000	10000 (D4)
HEXACHLOROBENZENE	NG/L	1.0	10. (C1)
HEXACHLOROETHANE	NG/L	1.000	1900. (D4)
OCTACHLOROSTYRENE	NG/L	1.000	N/A
PENTACHLOROBENZENE	NG/L	1.000	74000 (D4)
2,3,6-TRICHLOROTOLUENE	NG/L	5.000	N/A
2,4,5-TRICHLOROTOLUENE	NG/L	5.000	N/A
2,6,A-TRICHLOROTOLUENE	NG/L	5.000	N/A
CHLOROPHENOLS			
2,3,4-TRICHLOROPHENOL	NG/L	50.	N/A
2,3,4,5-TETRACHLOROPHENOL	NG/L	50.	N/A
2,3,5,6-TETRACHLOROPHENOL	NG/L	50.	N/A
2,4,5-TRICHLOROPHENOL	NG/L	50.	2600000 (D4)
2,4,6-TRICHLOROPHENOL	NG/L	50.	2000. (B4)
PENTACHLOROPHENOL	NG/L	50.	30000. (B4)
CHEMISTRY (FLD)			
FIELD COMBINED CHLORINE RESIDUAL	MG/L	N/A	N/A
FIELD FREE CHLORINE RESIDUAL	MG/L	N/A	N/A
FIELD TOTAL CHLORINE RESIDUAL	MG/L	N/A	N/A
FIELD PH	DMSNLESS	N/A	6.5-8.5 (A4)
FIELD TEMPERATURE	^{o}C	N/A	<15 ^{o}C (A1)
FIELD TURBIDITY	FTU	N/A	1.0 (A1)
CHEMISTRY (LAB)			
ALKALINITY	MG/L	.200	30-500 (A4)
CALCIUM	MG/L	.100	100. (F2)
CYANIDE	MG/L	.001	.20 (A1)
CHLORIDE	MG/L	.200	250. (A3)
COLOUR	TCU	.5	5.0 (A3)
CONDUCTIVITY	UMHO/CM	1.	400. (F2)
FLUORIDE	MG/L	.01	2.4 (A1)
HARDNESS	MG/L	.50	80-100 (A4)
MAGNESIUM	MG/L	.05	30. (F2)

SCAN/PARAMETER	UNIT	DETECTION LIMIT	GUIDELINE
NITRITE	MG/L	.001	1.0 (A1)
TOTAL NITRATES	MG/L	.02	10. (A1)
NITROGEN TOTAL KJELDAHL	MG/L	.02	N/A
PH	DMSNLESS	N/A	6.5-8.5(A4)
PHOSPHORUS FIL REACT	MG/L	.0005	N/A
PHOSPHORUS TOTAL	MG/L	.002	.40(F2)
TOTAL SOLIDS	MG/L	1.	500. (A3)
TURBIDITY	FTU	.02	1.0 (A1)
METALS			
ALUMINUM	UG/L	.050	100. (A4)
ANTIMONY	UG/L	.050	10. (F3)
ARSENIC	UG/L	.050	50. (A1)
BARIUM	UG/L	.020	1000. (A1)
BORON	UG/L	.200	5000. (A1)
BERYLLIUM	UG/L	.010	0.20 (H)
CADMIUM	UG/L	.050	5.0 (A1)
COBALT	UG/L	.020	1000. (H)
CHROMIUM	UG/L	.100	50. (A1)
COPPER	UG/L	.100	1000. (A3)
IRON	UG/L	5.0	300. (A3)
MERCURY	UG/L	.01	1.0 (A1)
MANGANESE	UG/L	.050	50. (A3)
MOLYBDENUM	UG/L	.020	500. (H)
NICKEL	UG/L	.100	50. (F3)
LEAD	UG/L	.020	50. (A1)
SELENIUM	UG/L	.200	10. (A1)
SILVER	UG/L	.020	50. (A1)
STRONTIUM	UG/L	.100	2000. (H)
THALLIUM	UG/L	.010	13. (D4)
TITANIUM	UG/L	.100	N/A
URANIUM	UG/L	.020	20. (A2)
VANADIUM	UG/L	.020	100. (H)
ZINC	UG/L	.020	5000. (A3)
PHENOLICS			
PHENOLICS (UNFILTERED REACTIVE)	UG/L	.2	2.0 (A3)
PESTICIDES & PCB			
ALDRIN	NG/L	1.0	700. (A1)
AMETRINE	NG/L	50.	300000. (D3)
ATRAZINE	NG/L	50.	60000. (B3)
ALPHA HEXACHLOROCYCLOHEXANE (BHC)	NG/L	1.0	700. (G)
BETA HEXACHLOROCYCLOHEXANE (BHC)	NG/L	1.0	300. (G)
GAMMA HEXACHLOROCYCLOHEXANE(LINDANE)	NG/L	1.0	4000. (A1)
ALPHA CHLORDANE	NG/L	2.0	7000. (A1)
GAMMA CHLORDANE	NG/L	2.0	7000. (A1)
BLADEX	NG/L	100.	10000. (B3)
DIELDRIN	NG/L	2.0	700. (A1)
METHOXYCHLOR	NG/L	5.0	900000. (B1)
ENDOSULFAN 1 (THIODAN I)	NG/L	2.0	74000. (D4)
ENDOSULFAN 2 (THIODAN II)	NG/L	4.0	74000. (D4)
ENDRIN	NG/L	4.0	200. (A1)
ENDOSULFAN SULPHATE(THIODAN SULPHATE)	NG/L	4.0	N/A
HEPTACHLOR EPOXIDE	NG/L	1.0	3000. (A1)

SCAN/PARAMETER	UNIT	DETECTION LIMIT	GUIDELINE	
HEPTACHLOR	NG/L	1.0	3000.	(A1)
METOLACHLOR	NG/L	500.	50000.	(B3)
MIREX	NG/L	5.0	N/A	
OXYCHLORDANE	NG/L	2.0	N/A	
O,P-DDT	NG/L	5.0	30000.	(A1)
PCB	NG/L	20.0	3000.	(A2)
O,P-DDD	NG/L	5.0	N/A	
PPDDE	NG/L	1.0	30000.	(A1)
PPDDT	NG/L	5.0	30000.	(A1)
ATRATONE	NG/L	50.	N/A	
ALACHLOR	NG/L	500.	35000.	(D2)
PROMETONE	NG/L	50.	52500.	(D3)
PROPAZINE	NG/L	50.	16000.	(D2)
PROMETRYNE	NG/L	50.	1000.	(B3)
SENCOR (METRIBUZIN)	NG/L	100.	80000.	(B2)
SIMAZINE	NG/L	50.	10000.	(B3)
POLYAROMATIC HYDROCARBONS				
PHENANTHRENE	NG/L	10.0	N/A	
ANTHRACENE	NG/L	1.0	N/A	
FLUORANTHENE	NG/L	20.0	42000.	(D4)
PYRENE	NG/L	20.0	N/A	
BENZO(A)ANTHRACENE	NG/L	20.0	N/A	
CHRYSENE	NG/L	50.0	N/A	
DIMETHYL BENZO(A)ANTHRACENE	NG/L	5.0	N/A	
BENZO(E)PYRENE	NG/L	50.0	N/A	
BENZO(B)FLUORANTHENE	NG/L	10.0	N/A	
PERYLENE	NG/L	10.0	N/A	
BENZO(K)FLUORANTHENE	NG/L	1.0	N/A	
BENZO(A)PYRENE	NG/L	5.0	10.	(B1)
BENZO(G,H,I)PERYLENE	NG/L	20.0	N/A	
DIBENZO(A,H)ANTHRACENE	NG/L	10.0	N/A	
INDENO(1,2,3-C,D)PYRENE	NG/L	20.0	N/A	
BENZO(B)CHRYSENE	NG/L	2.0	N/A	
CORONENE	NG/L	10.0	N/A	
SPECIFIC PESTICIDES				
TOXAPHENE	NG/L	N/A	5000.	(A1)
2,4,5-TRICHLOROBUTYRIC ACID (2,4,5-T)	NG/L	50.	200000.	(B4)
2,4-DICHLOROBUTYRIC ACID (2,4-D)	NG/L	100.	100000.	(A1)
2,4-DICHLORORPHENOXYBUTYRIC ACID	NG/L	200.	18000.	(B3)
2,4-D PROPIONIC ACID	NG/L	100.	N/A	
DICAMBA	NG/L	100.	120000.	(B1)
PICLORAM	NG/L	100.	190000.	(B3)
SILVEX (2,4,5-TP)	NG/L	50.	10000.	(A1)
DIAZINON	NG/L	20.	20000.	(B1)
DICHLOROVOS	NG/L	20.	N/A	
DURSBAN	NG/L	20.	N/A	
ETHION	NG/L	20.	35000.	(G)
GUTHION(AZINPHOSMETHYL)	NG/L	N/A	20000.	(B1)
MALATHION	NG/L	20.	190000.	(B1)
MEVINPHOS	NG/L	20.	N/A	
METHYL PARATHION	NG/L	50.	7000.	(A1)
METHYLTRITHION	NG/L	20.	N/A	
PARATHION	NG/L	20.	50000.	(B1)

SCAN/PARAMETER	UNIT	DETECTION LIMIT	GUIDELINE
PHORATE (THIMET)	NG/L	20.	2000. (B3)
RELDAN	NG/L	20.	N/A
RONNEL	NG/L	20.	N/A
AMINOCARB	NG/L	N/A	N/A
BENONYL	NG/L	N/A	N/A
BUX (METALKAMATE)	NG/L	2000.	N/A
CARBOFURAN	NG/L	2000.	90000. (B1)
CICP (CHLORPROPHAM)	NG/L	2000.	350000. (G)
DIALLATE	NG/L	2000.	30000. (H)
EPTAM	NG/L	2000.	N/A
IPC	NG/L	2000.	N/A
PROPOXUR (BAYGON)	NG/L	2000.	90000. (G)
SEVIN (CARBARYL)	NG/L	200.	90000. (B1)
SUTAN (BUTYLATE)	NG/L	2000.	245000. (D3)
VOLATILES			
BENZENE	UG/L	.050	5.0 (B1)
TOLUENE	UG/L	.050	24.0 (B4)
ETHYLBENZENE	UG/L	.050	2.4 (B4)
PARA-XYLENE	UG/L	.100	300. (B4)
META-XYLENE	UG/L	.100	300. (B4)
ORTHO-XYLENE	UG/L	.050	300. (B4)
1,1-DICHLOROETHYLENE	UG/L	.100	7.0 (D1)
ETHLYENE DIBROMIDE	UG/L	.05	.05 G)
METHYLENE CHLORIDE	UG/L	.500	50. (B1)
TRANS-1,2-DICHLOROETHYLENE	UG/L	.100	70. (D5)
1,1-DICHLOROETHANE	UG/L	.100	N/A
CHLOROFORM	UG/L	.100	350. (A1+)
1,1,1-TRICHLOROETHANE	UG/L	.020	200. (D1)
1,2-DICHLOROETHANE	UG/L	.050	5.0 (D1)
CARBON TETRACHLORIDE	UG/L	.200	5.0 (B1)
1,2-DICHLOROPROPANE	UG/L	.050	6.0 (D5)
TRICHLOROETHYLENE	UG/L	.100	50. (B1)
DICHLOROBROMOMETHANE	UG/L	.050	350. (A1+)
1,1,2-TRICHLOROETHANE	UG/L	.050	.60(D4)
CHLORODIBROMOMETHANE	UG/L	.100	350. (A1+)
TETRACHLOROETHYLENE	UG/L	.050	10.0 (C2)
BROMOFORM	UG/L	.200	350. (A1+)
1,1,2,2-TETRACHLOROETHANE	UG/L	.050	0.17(D4)
CHLOROBENZENE	UG/L	.100	60. (D5)
1,4-DICHLOROBENZENE	UG/L	.100	1.0 (B4)
1,3-DICHLOROBENZENE	UG/L	.100	130. (G)
1,2-DICHLOROBENZENE	UG/L	.050	3.0 (B4)
TRIFLUOROCHLOROTOLUENE	UG/L	.100	N/A
TOTAL TRIHALOMETHANES	UG/L	.500	350. (A1)
STYRENE	UG/L	.05	140. (D5)